

Protein Sequence Searches - February 2005

All of the sequence databases on ABSS have recently been updated.

- Please note that the curators of the UniProt database have purged some temporary accession numbers from the most recent version of UniProt. These sequences have been assigned new permanent accession numbers. The new UniProt record may not contain the previous temporary accession number.
- If you encounter an accession number from an older search run against UniProt (results file extension .rup) that can no longer be found in the database, the permanent record with the new accession number can be found by searching the old accession number in the UniProt Protein Archive database (UniPARC) at:

<http://www.pir.uniprot.org/database/archive.shtml>

If you have any questions regarding this information or your results, please contact any STIC searcher.

When submitting sequence search results for scanning into IFW, please include a copy of this attachment to assist any future Examiners or members of the public who may encounter UniProt temporary accession numbers.

This Page Blank (usps),

From: Bunner, Bridget
Sent: Tuesday, February 21, 2006 3:47 PM
To: STIC-Biotech/ChemLib
Subject: sequence search

Hi! I'd like to request a sequence search for case 10/620,642:

1. the amino acid sequence of SEQ ID NO: 46
2. the amino acid sequence of SEQ ID NO: 61
3. the amino acid sequence of SEQ ID NO: 63

Thanks!

Bridget Bunner

Art Unit 1647
Rem 4C65
(571) 272-0881
mailbox 4C70

RECEIVED
FEB 21 2006
STIC

Searcher: _____
Searcher Phone: _____
Date Searcher Picked up: _____
Date completed: _____
Searcher Prep Time: _____
Online Time: _____

Type of Search
NA# _____ AA# _____
S/L: _____ Oligomer: _____
Encode/Transl: _____
Structure #: _____ Text: _____
Inventor: _____ Litigation: _____

Vendors and cost where applicable
STN: _____
DIALOG: _____
QUESTEL/ORBIT: _____
LEXIS/NEXIS: _____
SEQUENCE SYSTEM: _____
WWW/Internet: _____
Other (Specify): _____

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GenCore version 5.1.1.7
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OM protein - protein search, using sw model

Run on: February 22, 2006, 18:05:41 ; Search time 122.336 Seconds
(without alignments)
747.047 Million cell updates/sec

Title: US-10-620-642-46
Perfect score: 1061
Sequence: 1 MKRTQTWILTYIQLLLPN.....AASSLRNDSNSSNKIYLI 208

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_21:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
9: geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1061	100.0	208	2	Aar83977 Human ste
2	1061	100.0	208	2	Aar95175 Stem cell
3	1061	100.0	208	3	Aay53286 Human ste
4	1061	100.0	208	4	Aab98355 Human ste
5	1061	100.0	208	4	Aau02457 Human SCF
6	1061	100.0	208	4	Aab96940 Human ste
7	1061	100.0	208	4	Aab73565 Human SCF
8	1061	100.0	208	4	Aau02764 Human SCF
9	1061	100.0	208	4	Aau05255 Human ste
10	1061	100.0	208	5	Aae22323 Human ste
11	1061	100.0	208	5	ABG95641 Human SCF
12	1061	100.0	208	7	ABG52474 Human ste
13	1061	100.0	208	8	ADP99316 Human ste
14	1061	100.0	208	8	ADU50646 Human ste
15	1061	100.0	208	9	ADW93091 Human ste
16	1061	100.0	208	9	ADZ47543 Human ste
17	1052	99.2	208	2	AAR11710 Human ste
18	1030	97.1	220	9	ADW93154 Human Ste
19	1030	97.1	220	9	ADZ47643 Human ste
20	1030	97.1	248	9	ADW93153 Human Ste
21	1030	97.1	248	9	ADZ47644 Human Ste
22	1030	97.1	273	2	AAR11711 Human Ste
23	1030	97.1	273	2	AAR20647 Human mas
24	1030	97.1	273	2	AAR83978 Human ste

25	1030	97.1	273	2	AAW27607	Aaw27607 Human rec
26	1030	97.1	273	3	AAy53284	Aay53284 Human SCF
27	1030	97.1	273	4	AAy53286	Aay53286 Human ste
28	1030	97.1	273	4	AAy53286	Aay53286 Human SCF
29	1030	97.1	273	4	AAy53286	Aay53286 Human SCF
30	1030	97.1	273	4	AAU02458	Aau02458 Human SCF
31	1030	97.1	273	4	AAU02460	Aau02460 Human SCF
32	1030	97.1	273	4	AAy53286	Aay53286 Human ste
33	1030	97.1	273	4	AAy53286	Aay53286 Human ste
34	1030	97.1	273	4	AAy53286	Aay53286 Human ste
35	1030	97.1	273	4	AAy53286	Aay53286 Human SCF
36	1030	97.1	273	4	AAy53286	Aay53286 Human SCF
37	1030	97.1	273	4	AAU02766	Aau02766 Human SCF
38	1030	97.1	273	4	AAU02765	Aau02765 Human SCF
39	1030	97.1	273	4	AAU05256	Aau05256 Human ste
40	1030	97.1	273	4	AAU05256	Aau05256 Human SCF
41	1030	97.1	273	5	AAE22324	Aae22324 Human ste
42	1030	97.1	273	5	AAE22326	Aae22326 Human SCF
43	1030	97.1	273	5	ABG95642	ABg95642 Human SCF
44	1030	97.1	273	7	ADSE2476	AdE52476 Human ste
45	1030	97.1	273	7	ADSE2477	AdE52477 Human ste

ALIGNMENTS

RESULT 1
AAR83977
ID AAR83977 standard; protein; 208 AA.
XX AC AAR83977;
XX DT 25-MAR-2003 (revised)
DT 14-MAY-1996 (first entry)
XX DE Human stem cell factor (SCF).
XX KW Stem cell factor; progenitor; haematopoiesis; SCF; anaemia;
KW thrombocytopenia; leucopenia; AIDS; immunodeficiency; bone graft;
KW transplant; neoplasia; myelosuppression; bone marrow.
XX OS Homo sapiens.
XX FH Key Location/Qualifiers
FT Peptide 1..25
FT Protein /label= sig_peptide
FT 26..183
FT /label= mat_peptide
XX EP676470-A1.
XX PD 11-OCT-1995.
XX PF 04-OCT-1990; 95EP-00105391.
XX PR 16-OCT-1989; 89US-00422383.
XX PR 11-JUN-1990; 90US-00537198.
XX PR 24-AUG-1990; 90US-00573616.
XX PR 28-SEP-1990; 90WO-US005548.
XX PR 01-OCT-1990; 90US-00589701.
XX (AMGE-) AMGEN INC.
XX PI Zsebo KM, Suggs SV, Bosselman RA, Martin FH;
XX WPI; 1995-346090/45.
XX N-PSDB; AAT04889.
XX PT New stem cell factor polypeptide(s) - for stimulating the growth of
PT primitive progenitor cells, esp. for treating disorders involving blood
PT cells.
XX PS Disclosure; Fig 15C; 127pp; English.

XX AAR93997 is human stem cell factor (SCF). Non-naturally occurring SCF and
 CC C-terminally truncated polypeptides stimulate growth of primitive
 CC progenitors such as haematopoietic progenitor cells, neural stem cells
 CC and primordial germ stem cells. The peptides can be used in a composition
 CC for treating leucopenia, anaemia or thrombocytopenia, for enhancing
 CC engraftment of bone marrow during transplantation or for bone marrow
 CC recovery after chemotherapy or radiation-induced bone marrow aplasia or
 CC myelosuppression. They can also be used for the treating neoplasia, nerve
 CC damage, infertility, intestinal damage or myeloproliferative disorders.
 CC Antibodies may be raised against the peptides for use in detection or
 CC neutralisation of SCF in serum. SCF may be useful for the treatment of
 CC AIDS and severe combined immunodeficiency (SCID) states alone or in
 CC combination with other factors such as IL-7. (Updated on 25-MAR-2003 to
 CC correct PF field.)
 XX
 SQ Sequence 208 AA;

Query Match 100.0%; Score 1061; DB 2; Length 208;
 Best Local Similarity 100.0%; Pred. No. 2e-103;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYYPG 60
 DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYYPG 60
 QY 61 MDVLPSCWISWVQVQSDSLTDLDDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
 DB 61 MDVLPSCWISWVQVQSDSLTDLDDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
 QY 121 KDLKSFSPERLPTPEEPRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180
 DB 121 KDLKSFSPERLPTPEEPRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180
 QY 181 KPFLPPVAAASLRNDSSSNKYYILI 208
 DB 181 KPFLPPVAAASLRNDSSSNKYYILI 208

RESULT 2

AAR95175
 ID AAR95175 standard; protein; 208 AA.

XX
 AC AAR95175;

DT 03-OCT-1996 (first entry)

XX
 DE Stem cell factor.

XX Stem cell factor; SCF; splice variant; embryo implantation;
 KW in vitro fertilisation; IVF.

XX Homo sapiens.

XX Key Location/Qualifiers
 FT Peptide 1..25
 FT Protein /label= Sig_peptide
 FT /label= Mat_protein

XX WO9614410-A1.
 PN 17-MAY-1996.
 PD 31-OCT-1995; 95WO-GB002547.
 PF 04-NOV-1994; 94GB-00022293.
 PR 28-APR-1995; 95GB-00008618.
 XX (ISTF) ARS APPLIED RES SYST HOLDING NV.
 XX Sharkey AM, Smith SK, Dellow KA;
 PI
 XX

DR WPI; 1996-251760/25.
 DR N-PSDB; AAT29489.
 XX
 PT Stem cell factor comprising C-terminal sequence given in specification -
 PT useful to ensure correct development of pre-implantation embryos before
 PT implantation into subject.
 XX
 PS Disclosure; Fig 2; 25pp; English.
 XX
 CC A DNA sequence (AAT29489) codes for human stem cell factor (SCF)
 CC (AAR95175). The full-length SCF transcript consists of 8 exons. A novel
 CC splice variant has been identified that appears to arise from the
 CC inclusion of a novel exon (see also AAT29489) between exons 3 and 4 of
 CC the gene. The resulting frameshift produces a novel SCF consisting of the
 CC first 39 amino acids of mature SCF followed by a 33-amino acid C-terminal
 CC region (AAR95174). The novel SCF is useful for ensuring correct
 CC development of pre-implantation embryos
 XX
 SQ Sequence 208 AA;

Query Match 100.0%; Score 1061; DB 2; Length 208;
 Best Local Similarity 100.0%; Pred. No. 2e-103;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYYPG 60
 DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYYPG 60
 QY 61 MDVLPSCWISWVQVQSDSLTDLDDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
 DB 61 MDVLPSCWISWVQVQSDSLTDLDDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
 QY 121 KDLKSFSPERLPTPEEPRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180
 DB 121 KDLKSFSPERLPTPEEPRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180
 QY 181 KPFLPPVAAASLRNDSSSNKYYILI 208
 DB 181 KPFLPPVAAASLRNDSSSNKYYILI 208

RESULT 3

AAY53286

ID AAY53286 standard; protein; 208 AA.

XX
 AC AAY53286;

DT 27-JUL-2000 (first entry)

XX
 DE Human stem cell factor protein sequence.

XX Stem cell factor; SCF; haematopoietic progenitor cell; blood forming;
 KW primitive progenitor cell; haematopoietic disorder; syngeneic;
 KW allogeneic; autologous bone marrow transplant; gene therapy;
 KW transfection; haematopoietic stem cell; acute blood loss; neoplasia;
 KW cancer.

XX Homo sapiens.

XX EP992579-A1.

PN 12-APR-2000.

PD 04-OCT-1990; 99EP-00122861.

PF 16-OCT-1989; 89US-00422383.

PR 11-JUN-1990; 90US-00537198.

PR 24-AUG-1990; 90US-00573616.

PR 28-SEP-1990; 90WO-US005548.

PR 01-OCT-1990; 90US-00589701.

PR 04-OCT-1990; 90EP-00310899.

XX (AMGE-) AMGEN INC.

XX Zeebo KM, Suggs SV, Bosselmann RA, Martin FH;
PI WPI; 2000-259135/23.
DR N-PSDB; AA13716.
XX Production of hematopoietic cells suitable for administration to a
PT subject using progenitor cells and expanding the cells using stem cell
PT factor.
XX Claim 21; Fig 15C; 123pp; English.
XX A method has been developed of making haematopoietic cells suitable for
CC administration to a subject. The method comprises: (a) obtaining
CC haematopoietic progenitor cells from a donor; and (b) expanding the cells
CC by adding to the cells a haematopoietically effective dose of a
CC polypeptide product having at least part of the primary structural
CC confirmation and one or more of the biological properties of naturally
CC occurring stem cell factor (SCF). The method is useful for stimulating
CC primitive progenitor cells including early haematopoietic progenitor
CC cells which are capable of maturing to erythroid, megakaryocyte,
CC granulocyte, lymphocyte and macrophage cells. SCF results in absolute
CC increases in haematopoietic cells of both myeloid and lymphoid lineages.
CC SCF is useful for treating haematopoietic disorders. The method is useful
CC for expanding early haematopoietic progenitors in syngeneic, allogeneic
CC or autologous bone marrow transplant. SCF is useful for enhancing the
CC efficiency of gene therapy based on transfecting haematopoietic stem
CC cells. SCF is also useful for combating the myelosuppressive effects of
CC anti-HIV drugs such as AZT and for enhancing haematopoietic recovery
CC after acute blood loss and as a boost to the immune system for fighting
CC neoplasia (cancer). The present sequence represents a specifically
CC claimed human SCF from the present invention
XX Sequence 208 AA;
SQ
Query Match 100.0%; Score 1061; DB 3; Length 208;
Best Local Similarity 100.0%; Pred. No. 2e-103;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTLYQLLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTLYQLLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISWVQVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIVDDLVKCVKENS 120
DB 61 MDVLPSCWISWVQVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIVDDLVKCVKENS 120
QY 121 KDLKSKFSKSPRLPTPEFFRIFNRSIDAFKDFVVASSETSCVVSSTLSPEKDSRVSVT 180
DB 121 KDLKSKFSKSPRLPTPEFFRIFNRSIDAFKDFVVASSETSCVVSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208
DB 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208
RESULT 4
AAB98355
ID AAB98355 standard; protein; 208 AA.
XX AAB98355;
XX 21-AUG-2001 (first entry)
XX Human stem cell factor (SCF) protein SEQ ID NO:46.
XX Stem cell factor; SCF; stem cell factor receptor; blood cell disorder;
KW gene therapy.
XX Homo sapiens.
XX US6207454-B1.
XX

PD 27-MAR-2001.
XX 31-DEC-1998; 98US-00224681.
XX 16-OCT-1989; 89US-00422383.
PR 11-JUN-1990; 90US-00537198.
PR 24-AUG-1990; 90US-00573616.
PR 01-OCT-1990; 90US-00589701.
PR 25-NOV-1992; 92US-00982255.
PR 21-DEC-1993; 93US-00172329.
PR 24-MAY-1995; 95US-00449653.
PR 12-JAN-1998; 98US-00058993.
XX (AMGE-) AMGEN INC.
XX Zeebo KM, Bosselmann RA, Suggs SV, Martin FH;
PI WPI; 2001-366062/38.
DR N-PSDB; AA41341.
XX Enhancing efficiency of transfer of polynucleotide into a target
PT mammalian cell in vitro, involves exposing cell that expresses a stem
PT cell factor receptor to stem cell factor, and introducing polynucleotide
PT into cell in vitro.
XX Claim 16; Fig 15C; 210pp; English.
XX The present invention describes a method for enhancing (E) the efficiency
CC of transfer of a polynucleotide (I) into a target mammalian cell (II) in
CC vitro, comprising exposing (II) that expresses a stem cell factor (SCF)
CC receptor to a biologically active SCF, its analogue or fragment, which
CC induces cell proliferation, and introducing (I) to (II) in vitro.
CC Exposure of SCF to (II) results in increased uptake of (I) into the cell.
CC The method is useful for enhancing the efficiency of the transfer of a
CC polynucleotide into a target mammalian cell in vitro. The method is
CC useful in gene therapy techniques. AA41301 to AA41364 and AAB98351 to
CC AAB98390 represent sequences used in the exemplification of the present
XX invention
SQ Sequence 208 AA;
Query Match 100.0%; Score 1061; DB 4; Length 208;
Best Local Similarity 100.0%; Pred. No. 2e-103;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTLYQLLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTLYQLLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISWVQVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIVDDLVKCVKENS 120
DB 61 MDVLPSCWISWVQVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIVDDLVKCVKENS 120
QY 121 KDLKSKFSKSPRLPTPEFFRIFNRSIDAFKDFVVASSETSCVVSSTLSPEKDSRVSVT 180
DB 121 KDLKSKFSKSPRLPTPEFFRIFNRSIDAFKDFVVASSETSCVVSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208
DB 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208
RESULT 5
AAU02457
ID AAU02457 standard; protein; 208 AA.
XX AAU02457;
XX 29-AUG-2001 (first entry)
XX Human SCF (stem cell factor) protein encoded by SCF cDNA.
XX Human; stem cell factor; SCF; early haematopoietic progenitor cell;
KW

KW blood disorder; leukaemia; Hodgkin's disease; lymphoma; splenomegaly;
 KW anaemia; Kala azar; septicemia; malaria; hypopigmentation disorder.
 XX
 OS Homo sapiens.
 XX
 XX Key Location/Qualifiers
 FH Peptide 1..25
 FT /label= Signal_peptide
 FT Protein 26..208
 FT /label= Mature_SCF
 XX
 XX US6207417-B1.
 XX
 XX 27-MAR-2001.
 XX
 XX 07-JUN-1995; 95US-00482918.
 XX
 XX 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.
 PR 24-AUG-1990; 90US-00573616.
 PR 01-OCT-1990; 90US-00589701.
 PR 21-DEC-1993; 93US-00172329.
 XX
 XX (ZSEB/) ZSEBO K M.
 PA (BOSS/) BOSSELMAN R A.
 PA (SUGG/) SUGGS S V.
 PA (MART/) MARTIN F H.
 XX
 XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
 PI WPI: 2001-298941/31.
 XX N-PSDB; AAS04121.
 DR
 XX Novel nucleic acids encoding stem cell factor useful for treating
 PT disorders involving blood cells, e.g. leukaemia, splenomegaly, Hodgkin's
 PT disease, Kala azar, anemia and septicemia.
 XX
 XX Example 3; Fig 15C; 209pp; English.
 PS
 XX The present sequence represents human SCF (stem cell factor) protein
 CC encoded by SCF cDNA. The present invention relates to novel stem cell
 CC factors (AAU02453-AAU02458, AAU02460, AAU02461) and the polynucleotides
 CC encoding them. SCF stimulate primitive progenitor cells including early
 CC haematopoietic progenitor cells. The invention also describes SCF
 CC peptides (AAU02462-AAU02481) and the oligonucleotides (AAS04081-AAS04117)
 CC used in the isolation of human and rat SCF sequences. The polynucleotide
 CC encoding SCF is useful for producing SCF and useful in gene therapy. It
 CC is useful for treating disorders involving blood cells such as
 CC myelofibrosis, metastatic carcinoma, acute leukaemia, multiple myeloma,
 CC Hodgkin's disease, lymphoma, Gaucher's disease, anaemia, congestive
 CC splenomegaly, Kala azar, sarcoidosis, military tuberculosis, disseminated
 CC fungus disease, Fulminating septicemia, malaria, vitamin B12 and folic
 CC acid deficiency, pyridoxine deficiency, and hypopigmentation disorders
 CC such as piebaldism and vitiligo
 XX
 XX Sequence 208 AA;
 SQ
 Query Match 100.0%; Score 1061; DB 4; Length 208;
 Best Local Similarity 100.0%; Pred. No. 2e-103;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNRVTNNKDVTKLVANLPKDYMITLKYPG 60
 DB 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNRVTNNKDVTKLVANLPKDYMITLKYPG 60
 QY 61 MDVLPSCWISWVQLSDSLDLDKFSNIGSELSNYIIDLKVNIVDDVECVKENS 120
 DB 61 MDVLPSCWISWVQLSDSLDLDKFSNIGSELSNYIIDLKVNIVDDVECVKENS 120
 QY 121 KDLKKSFKSPERLFTPEFFRIFNRSIDAFKDFVVASSETSDCVSSSTLSPEKDSRVST 180
 DB 121 KDLKKSFKSPERLFTPEFFRIFNRSIDAFKDFVVASSETSDCVSSSTLSPEKDSRVST 180

QY 181 KPFLPPVVAASSLRNDSSSSNSKYYILI 208
 DB 181 KPFLPPVVAASSLRNDSSSSNSKYYILI 208
 RESULT 6
 AAB96940
 ID AAB96940 standard; protein; 208 AA.
 XX
 AC AAB96940;
 XX
 DT 13-JUL-2001 (first entry)
 XX
 DE Human stem cell factor SEQ ID NO: 46.
 XX
 KW Human; rat; mammal; stem cell factor; SCF; cell growth stimulation;
 KW gene therapy; haematopoietic disorder; aplastic anaemia; leukaemia;
 KW neurological damage; intestinal damage; infertility; AIDS; SCID;
 XX severe combined immunodeficiency.
 OS Homo sapiens.
 XX
 XX Key Location/Qualifiers
 FH Peptide 1..25
 FT /label= signal_peptide
 FT Protein 26..208
 FT /label= mature_stem_cell_factor
 XX
 XX US6207802-B1.
 XX
 XX 27-MAR-2001.
 XX
 XX 09-NOV-1994; 94US-00336728.
 XX
 XX 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.
 PR 24-AUG-1990; 90US-00573616.
 PR 01-OCT-1990; 90US-00589701.
 PR 25-NOV-1992; 92US-00982255.
 XX
 XX (AMGE-) AMGEN INC.
 PA Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
 PI WPI: 2001-353108/37.
 DR N-PSDB; AAF89101.
 XX
 XX Novel isolated non-human mammalian stem cell factor polypeptide
 PT stimulating growth of early hematopoietic progenitor cells, useful for
 PT treating aplastic anemia, lymphoma, Letterer-Siwe disease, Kala azar,
 PT sarcoidosis.
 XX
 XX Disclosure; Fig 15C; 209pp; English.
 XX
 XX The present invention provides the protein and coding sequences of
 CC mammalian stem cell factors (SCFs). These are capable of stimulating the
 CC growth of early haematopoietic progenitor cells, neural stem cells and
 CC primordial germ stem cells. The sequences are useful in the treatment of
 CC leukaemias, haematopoietic disorders, aplastic anaemia, paroxysmal
 CC nocturnal haemoglobinuria, malaria, pigmentation disorders, neurological
 CC and intestinal damage, infertility, AIDS and severe combined
 CC immunodeficiency (SCID). The present sequence is an SCF described in the
 CC invention
 XX
 XX Sequence 208 AA;
 SQ
 Query Match 100.0%; Score 1061; DB 4; Length 208;
 Best Local Similarity 100.0%; Pred. No. 2e-103;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNRVTNNKDVTKLVANLPKDYMITLKYPG 60
 DB 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNRVTNNKDVTKLVANLPKDYMITLKYPG 60

QY 61 MDVLPSCWISSEMVQSLDLDKFNISSEGLSNYSIIDKLVNIVDDLVECVKENS 120
 DB 61 MDVLPSCWISSEMVQSLDLDKFNISSEGLSNYSIIDKLVNIVDDLVECVKENS 120
 QY 121 KDLKSKFSPKPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
 DB 121 KDLKSKFSPKPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
 QY 181 KPFPMLPPVAASSLRNDSSSSNSKYIYLI 208
 DB 181 KPFPMLPPVAASSLRNDSSSSNSKYIYLI 208

RESULT 7
 AAB73565
 ID AAB73565 standard; protein; 208 AA.
 XX AC AAB73565;
 XX 07-AUG-2001 (first entry)
 XX Human SCF (stem cell factor) protein #2, encoded by SCF cDNA.
 KW Human; stem cell factor; SCF; early haematopoietic progenitor cell;
 KW blood disorder; leukaemia; Hodgkin's disease; lymphoma; splenomegaly;
 KW anaemia; Kala azar; septicaemia; malaria; hypopigmentation disorder.
 XX OS Homo sapiens.
 XX FH Key Location/Qualifiers
 XX FT Peptide 1..25
 XX FT Protein 26..208
 XX FT /label= Signal_peptide
 XX FT /label= Mature_SCF
 XX US6204363-B1.
 XX 20-MAR-2001.
 XX 25-NOV-1992; 92US-00982255.
 XX 16-OCT-1989; 89US-00422383.
 XX 11-JUN-1990; 90US-00537198.
 XX 24-AUG-1990; 90US-00573616.
 XX 01-OCT-1990; 90US-00589701.
 XX 10-APR-1991; 91US-00684535.
 XX (AMGE-) AMGEN INC.
 XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
 XX WPI; 2001-256683/26.
 XX N-PSDB; AAH23899.
 XX New stem cell factor polypeptides and their analogs which stimulate
 XX growth of early hematopoietic progenitors, useful for treating aplastic
 XX anemia, carcinoma, multiple myeloma, vitiligo, kala azar, Hodgkin's
 XX disease.
 XX Claim 1; Fig 15C; 166pp; English.
 XX The present sequence represents human SCF (stem cell factor) protein
 XX encoded by SCF cDNA. The present invention relates to novel stem cell
 XX factors (AAB73561-AAB73568, AAB73571-AAB73576) and the polynucleotides
 XX encoding them. SCF stimulate primitive progenitor cells including early
 XX haematopoietic progenitor cells. The invention also describes SCF
 XX peptides (AAB73578-AAB73597) and the oligonucleotides (AAH23859-AAH23895)
 XX used in the isolation of human and rat SCF sequences. The polynucleotide
 XX encoding SCF is useful for producing SCF and useful in gene therapy. It
 XX is useful for treating disorders involving blood cells such as
 XX myelofibrosis, metastatic carcinoma, acute leukaemia, multiple myeloma,
 XX Hodgkin's disease, lymphoma, Gaucher's disease, anaemia, congestive

CC splenomegaly, Kala azar, sarcoidosis, military tuberculosis, disseminated
 CC fungus disease, Fulminating septicaemia, malaria, vitamin B12 and folic
 CC acid deficiency, pyridoxine deficiency, and hypopigmentation disorders
 CC such as piebaldism and vitiligo
 XX Sequence 208 AA;
 SQ Query Match 100.0%; Score 1061; DB 4; Length 208;
 Best Local Similarity 100.0%; Pred. No. 2e-103;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWILTCTIYQLQLLFNPLVKTEGICRNRVTNNKDVTKLVANLPKDYMTLKYVPG 60
 DB 1 MKKTQTWILTCTIYQLQLLFNPLVKTEGICRNRVTNNKDVTKLVANLPKDYMTLKYVPG 60
 QY 61 MDVLPSCWISSEMVQSLDLDKFNISSEGLSNYSIIDKLVNIVDDLVECVKENS 120
 DB 61 MDVLPSCWISSEMVQSLDLDKFNISSEGLSNYSIIDKLVNIVDDLVECVKENS 120
 QY 121 KDLKSKFSPKPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
 DB 121 KDLKSKFSPKPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
 QY 181 KPFPMLPPVAASSLRNDSSSSNSKYIYLI 208
 DB 181 KPFPMLPPVAASSLRNDSSSSNSKYIYLI 208

RESULT 8
 AAU02764
 ID AAU02764 standard; protein; 208 AA.
 XX AC AAU02764;
 XX 29-AUG-2001 (first entry)
 XX Human SCF (stem cell factor) protein encoded by SCF cDNA.
 KW Human; stem cell factor; SCF; early haematopoietic progenitor cell;
 KW blood disorder; leukaemia; Hodgkin's disease; lymphoma; splenomegaly;
 KW anaemia; Kala azar; septicaemia; malaria; hypopigmentation disorder.
 XX OS Homo sapiens.
 XX FH Key Location/Qualifiers
 XX FT Peptide 1..25
 XX FT Protein 26..208
 XX FT /label= Signal_peptide
 XX FT /label= Mature_SCF
 XX US6218148-B1.
 XX 17-APR-2001.
 XX 21-DEC-1993; 93US-00172329.
 XX 16-OCT-1989; 89US-00422383.
 XX 11-JUN-1990; 90US-00537198.
 XX 24-AUG-1990; 90US-00573616.
 XX 01-OCT-1990; 90US-00589701.
 XX 25-NOV-1992; 92US-00982255.
 XX (AMGE-) AMGEN INC.
 XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
 XX WPI; 2001-281051/29.
 XX N-PSDB; AAS04222.
 XX Isolated DNA sequence, encoding polypeptide product useful for
 XX stimulating growth of early hematopoietic progenitor cells.
 XX Example 3; Fig 15C; 167pp; English.

XX The present sequence represents human SCF (stem cell factor) protein
 CC encoded by SCF cDNA. The present invention relates to novel stem cell
 CC factors (AAU02761-AAU02767, AAU02770-AAU02775, AAU02797) and the
 CC polynucleotides encoding them. SCF stimulate primitive progenitor cells
 CC including early haematopoietic progenitor cells. The invention also
 CC describes SCF peptides (AAU02777-AAU02794) and the oligonucleotides
 CC (AAS04182-AAS04218) used in the isolation of human and rat SCF sequences.
 CC The polynucleotide encoding SCF is useful for producing SCF and useful in
 CC gene therapy. It is useful for treating disorders involving blood cells
 CC such as myelofibrosis, metastatic carcinoma, acute leukaemia, multiple
 CC myeloma, Hodgkin's disease, lymphoma, Gaucher's disease, anaemia,
 CC congestive splenomegaly, Kala azar, sarcoidosis, military tuberculosis,
 CC disseminated fungus disease, Fulminating septicemia, malaria, vitamin B12
 CC and folic acid deficiency, pyridoxine deficiency, and hypopigmentation
 CC disorders such as piebaldism and vitiligo
 XX
 SQ Sequence 208 AA;

Query Match 100.0%; Score 1061; DB 4; Length 208;
 Best Local Similarity 100.0%; Pred. No. 2e-103;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVNDVTKLVANLPKDYMITLKYPG 60
 DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVNDVTKLVANLPKDYMITLKYPG 60
 QY 61 MDVLPSCWISWMVQVQSDSLTDLDFKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENS 120
 DB 61 MDVLPSCWISWMVQVQSDSLTDLDFKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENS 120
 QY 121 KDLKSKSPKSPRLTPEEFFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVSVT 180
 DB 121 KDLKSKSPKSPRLTPEEFFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVSVT 180

QY 181 KPFMLPPVAASLRNDSSSNKYIYL 208
 DB 181 KPFMLPPVAASLRNDSSSNKYIYL 208

RESULT 9

AAU05255
 ID AAU05255 standard; protein; 208 AA.
 AC AAU05255;

XX 24-OCT-2001 (first entry)

XX Human stem cell factor (SCF) protein encoded by SCF cDNA.

XX Human; stem cell factor; SCF; haematopoietic progenitor cell;
 KW blood disorder; Hodgkin's disease; vitamin B12; folic acid deficiency;
 KW hypopigmentation disorder; viral disorder; AIDS.

XX Homo sapiens.

XX Key Location/Qualifiers
 FH Peptide 1..25
 FT /label= Signal_peptide
 FT Protein 26..208
 FT /label= Mature_SCF

XX US6248319-B1.

XX 19-JUN-2001.

XX 24-MAY-1995; 95US-00449653.

XX 16-OCT-1989; 89US-00422383.

XX 11-JUN-1990; 90US-00537198.

XX 24-AUG-1990; 90US-00573616.

XX 01-OCT-1990; 90US-00589701.

XX 10-APR-1991; 91US-00684535.

PR 25-NOV-1992; 92US-00982255.
 PR 21-DEC-1993; 93US-00172329.
 XX (ZSEB/) ZSEBO K M.
 PA (BOSS/) BOSSELMAN R A.
 PA (SUGG/) SUGGS S V.
 PA (MART/) MARTIN F H.
 XX
 PI Zsebo KM, Bosseelman RA, Suggs SV, Martin FH;
 XX WPI; 2001-407312/43.
 DR N-PSDB; AAS10457.
 XX
 PT Increasing the number of early hematopoietic progenitor cells in the
 PT peripheral blood useful for the treatment of blood disorders including
 PT Hodgkin's disease comprises the administration of human stem cell factor.
 XX
 PS Example 3; Fig 15C; 210pp; English.

XX The present sequence represents human stem cell factor (SCF). The
 CC sequence is described in an invention relating to novel stem cell
 CC factors, the polynucleotides encoding them and methods for producing the
 CC stem cell factors. The methods involve increasing the number of early
 CC haematopoietic progenitor cells in human peripheral blood by
 CC administering a haematopoietically effective human stem cell
 CC polypeptide. The methods are useful for the treatment of blood disorders,
 CC including myelofibrosis, myelocytosis, osteopetrosis, metastatic
 CC carcinoma, acute leukaemia, multiple myeloma, Hodgkin's disease,
 CC lymphoma, Gaucher's disease, Niemann-Pick disease, refractory anaemia,
 CC malaria, vitamin B12 and folic acid deficiency, hypopigmentation
 CC disorders i.e. piebaldism and viral induced disorders, including AIDS
 XX
 SQ Sequence 208 AA;

Query Match 100.0%; Score 1061; DB 4; Length 208;
 Best Local Similarity 100.0%; Pred. No. 2e-103;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVNDVTKLVANLPKDYMITLKYPG 60
 DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVNDVTKLVANLPKDYMITLKYPG 60
 QY 61 MDVLPSCWISWMVQVQSDSLTDLDFKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENS 120
 DB 61 MDVLPSCWISWMVQVQSDSLTDLDFKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENS 120
 QY 121 KDLKSKSPKSPRLTPEEFFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVSVT 180
 DB 121 KDLKSKSPKSPRLTPEEFFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVSVT 180
 QY 181 KPFMLPPVAASLRNDSSSNKYIYL 208
 DB 181 KPFMLPPVAASLRNDSSSNKYIYL 208

RESULT 10

AAE22323
 ID AAE22323 standard; protein; 208 AA.

XX AAE22323;

XX 25-JUL-2002 (first entry)

XX Human stem cell factor (SCF) protein #2.

XX Human; stem cell factor; SCF protein; leucopaenia; thrombocytopaenia;
 KW anaemia; myelosuppression; nerve damage; myeloproliferative disorder;
 KW infertility; neoplasia; myelofibrosis; myelocytosis; osteopetrosis;
 KW metastatic carcinoma; acute leukaemia; multiple myeloma; sarcoidosis;
 KW Hodgkin's disease; lymphoma; Gaucher's disease; Niemann-Pick disease;
 KW Letterer-Siwe disease; refractory erythroblastic anaemia; Kala azar;
 KW Di Guglielmo syndrome; congestive splenomegaly; splenic pancytopenia;
 KW disseminated fungus disease; Fulminating septicaemia; piebaldism; AIDS;

KW acquired immune deficiency syndrome; malaria; military tuberculosis;
 KW pyridoxine deficiency; vitamin B12 deficiency; folic acid deficiency;
 KW Diamond Blackfan anaemia; hypopigmentation disorder; vitiligo.
 XX
 OS Homo sapiens.
 FH
 XX Key Location/Qualifiers
 FT Peptide 1..25
 FT Protein /label= signal-peptide
 FT 26..208
 FT /note= "Human mature SCF protein"
 XX
 XX US2002018763-A1.
 PN
 XX 14-FEB-2002.
 PD
 XX 12-JAN-1998; 98US-00005243.
 PF
 XX 24-MAY-1995; 95US-00449653.
 PR
 XX (ZSEB/) ZSEBO K M.
 PA (BOSS/) BOSSELMAN R A.
 PA (SUGG/) SUGGS S V.
 PA (MART/) MARTIN F H.
 XX
 XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
 XX WPI; 2002-350789/38.
 DR N-PSDB; AAD35474.
 XX
 XX Novel non-naturally-occurring stem cell factor polypeptide, useful for
 PT treating leucopenia, thrombocytopenia, anemia and for enhancing
 PT engraftment of bone marrow during transplantation in a mammal.
 XX
 XX Claim 9; Fig 15C; 217pp; English.
 PS
 XX The present invention relates to novel non-naturally-occurring stem cell
 CC factor (SCF) polypeptides having an amino acid sequence sufficiently
 CC duplicative of that of naturally-occurring SCF to allow possession of
 CC haematopoietic biological activity of naturally occurring SCF. Sequences
 CC of the invention are useful for treating leucopenia, thrombocytopenia,
 CC anaemia and for enhancing bone marrow recovery in treatment of radiation,
 CC engraftment of bone marrow during transplantation in mammals and chemical
 CC or chemotherapeutic induced bone marrow aplasia or myelosuppression. They
 CC are also useful for treating acquired immune deficiency in a human, nerve
 CC damage, neoplasia, infertility, myeloproliferative disorder, intestinal
 CC damage in a mammal. SCF sequences are useful for preparing biologically
 CC active polymer polypeptide adduct, for enhancing transfection of early
 CC haematopoietic progenitor cells with a gene, and transfer of a gene into
 CC a mammal. They are useful for treating myelofibrosis, myelosclerosis,
 CC osteopetrosis, metastatic carcinoma, acute leukaemia, multiple myeloma,
 CC Hodgkin's disease, lymphoma, Gaucher's disease, Niemann-Pick disease,
 CC Letterer-Siwe disease, refractory erythroblastic anaemia, Di Guglielmo
 CC syndrome, congestive splenomegaly, Kala azar, sarcoidosis, primary
 CC splenic pancytopenia, disseminated fungus disease, malaria, military
 CC tuberculosis, Fulminating septicaemia, pyridoxine deficiency, vitamin B12
 CC and folic acid deficiency, Diamond Blackfan anaemia, hypopigmentation
 CC disorders such as piebaldism, AIDS (acquired immune deficiency syndrome)
 CC and vitiligo. The present sequence is human SCF protein
 XX
 XX Sequence 208 AA;
 Query Match 100.0%; Score 1061; DB 5; Length 208;
 Best Local Similarity 100.0%; Pred. No. 2e-103;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWILTCIYQLQLLNFPLVKTGICRNRVTNNVKDVTXKLVANLPKDYMITLKYPVG 60
 DB 1 MKKTQTWILTCIYQLQLLNFPLVKTGICRNRVTNNVKDVTXKLVANLPKDYMITLKYPVG 60
 QY 61 MDVLPFHCWISWMVQVLSLTDLLDKFNSISEGLSNYSIIDKLVNIVDDLVECVKENS 120
 DB 61 MDVLPFHCWISWMVQVLSLTDLLDKFNSISEGLSNYSIIDKLVNIVDDLVECVKENS 120

QY 121 KDLKSKFSKPEPRLFTPEFFRIFNRSIDAFKDFVVASETSCVWSSTLSPKDSRVSVT 180
 DB 121 KDLKSKFSKPEPRLFTPEFFRIFNRSIDAFKDFVVASETSCVWSSTLSPKDSRVSVT 180
 QY 181 KPFMLPPVAASSLRNDSSSSNSKIYILI 208
 DB 181 KPFMLPPVAASSLRNDSSSSNSKIYILI 208
 RESULT 11
 ID ABG95641 standard; protein; 208 AA.
 XX
 XX ABG95641;
 XX
 XX 05-DEC-2002 (first entry)
 XX
 XX Human SCF protein sequence encoded by cDNA.
 XX
 XX Stem cell factor; SCF; blood-forming system; blood cell disorder;
 KW haematopoietic system; metastatic carcinoma; acute leukaemia;
 KW multiple myeloma; Hodgkin's disease; lymphoma; malaria; vitiligo;
 KW refractory erythroblastic anaemia; military tuberculosis; cytostatic;
 KW disseminated fungus disease; haematopoietic; tuberculous; antianaemic;
 KW antifungal; antimalarial; dermatological; human.
 XX
 XX Homo sapiens.
 XX
 XX EP1241258-A2.
 XX
 XX 18-SEP-2002.
 PD
 XX 04-OCT-1990; 2002EP-00008587.
 PF
 XX 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.
 PR 24-AUG-1990; 90US-00573616.
 PR 28-SEP-1990; 90WO-US005548.
 PR 01-OCT-1990; 90US-00589701.
 PR 04-OCT-1990; 90EP-00310899.
 PR 04-OCT-1990; 95EP-00105391.
 XX (AMGE-) AMGEN INC.
 XX
 XX Zsebo KM, Suggs SV, Bosselman RA, Martin FH;
 PI
 XX WPI; 2002-684093/74.
 DR N-PSDB; ABS73858.
 XX
 XX Production of a human stem cell factor (SCF) polypeptide for treating
 PT disorders involving blood cells, such as leukemia, comprises culturing
 PT mammalian cells comprising non-human SCF promoter DNA linked to DNA
 PT encoding the human SCF.
 XX
 XX Claim 1; Fig 15C; 120pp; English.
 XX
 XX The present invention relates to novel stem cell factors (SCFs),
 CC polynucleotide sequences encoding the SCFs, and methods of producing
 CC them. SCFs are involved in the blood-forming (haematopoietic) system in
 CC mammals, particularly humans. The method of the invention is useful for
 CC the production of human SCF. The stem cell factors are useful to treat
 CC disorders involving blood cells e.g. metastatic carcinoma, acute
 CC leukaemia, multiple myeloma, Hodgkin's disease, lymphoma, refractory
 CC erythroblastic anaemia, military tuberculosis, disseminated fungus
 CC disease, malaria, and vitiligo. The present sequence represents human SCF
 CC protein
 XX
 XX Sequence 208 AA;
 Query Match 100.0%; Score 1061; DB 5; Length 208;
 Best Local Similarity 100.0%; Pred. No. 2e-103;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
 DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
 QY 61 MDVLPSCWISSEMVMVQLSDSLTDLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
 DB 61 MDVLPSCWISSEMVMVQLSDSLTDLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
 QY 121 KDLKSFKSPPEPLFTPEEFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
 DB 121 KDLKSFKSPPEPLFTPEEFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
 QY 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208
 DB 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208
 RESULT 12
 ID ADE52474 standard; protein; 208 AA.
 AC ADE52474;
 XX
 DT 29-JAN-2004 (first entry)
 XX Human stem cell factor (SCF) polypeptide #2.
 DE Human; stem cell factor; SCF; haematopoietic activity; infertility;
 KW intestinal damage; myeloproliferative disorder; leucopenia;
 KW thrombocytopenia; anaemia; bone marrow transplant; immune deficiency;
 KW neoplasia; nerve damage; osteoporosis; metastatic carcinoma; leukaemia;
 KW myeloid leukaemia; haematopoietic progenitor cell.
 OS Homo sapiens.
 XX
 PN US2002031491-A1.
 XX
 PD 14-MAR-2002.
 XX
 PF 31-DEC-1998; 98US-00224683.
 XX
 PR 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.
 PR 24-AUG-1990; 90US-00573616.
 PR 01-OCT-1990; 90US-00589701.
 PR 10-APR-1991; 91US-00684535.
 PR 25-NOV-1992; 92US-00982255.
 PR 21-DEC-1993; 93US-00172329.
 PR 24-MAY-1995; 95US-00449653.
 PR 12-JAN-1998; 98US-00005893.
 XX
 PA (ZSEB/) ZSEBO K M.
 PA (BOSS/) BOSSELMAN R A.
 PA (SUGG/) SUGGS S V.
 PA (MART/) MARTIN F H.
 XX
 PI Zsebo KM, BosseLMAN RA, Suggs SV, Martin FH;
 XX
 DR WPI: 2003-851459/79.
 DR N-PSDB; ADE52473.
 XX
 PT New non-natural stem cell factor, useful for treating e.g. leucopenia or
 PT immune deficiency, also related nucleic acid and antibodies.
 XX
 PS Claim 9; SEQ ID NO 46; 217pp; English.
 XX
 CC The invention relates to stem cell factor (SCF) polypeptides with
 CC haematopoietic activity and the polynucleotides encoding them. The
 CC polypeptides are used for treating infertility, intestinal damage,
 CC myeloproliferative disorders, leucopenia, thrombocytopenia or anaemia,
 CC for improving engraftment of bone marrow transplants, for enhancing bone
 CC marrow recovery after radiotherapy or chemotherapy and in treatment of

CC immune deficiency, neoplasia, nerve damage, osteoporosis, metastatic
 CC carcinoma, leukaemia and myeloid leukaemia. The SCF polypeptides are
 CC also used to expand haematopoietic progenitor cells for transplantation
 CC and to prepare such cells for transfection with a gene. The SCF
 CC polynucleotides can be used for recombinant expression of the
 CC polypeptides and also as probes for mapping of the SCF gene, for
 CC identifying SCF-related diseases and as a marker for neighbouring genes.
 CC Antibodies raised against the polypeptides are useful in diagnosis and to
 CC remove SCF from blood. This sequence represents an SCF polypeptide of the
 CC invention.
 XX
 SQ Sequence 208 AA;
 Query Match 100.0%; Score 1061; DB 7; Length 208;
 Best Local Similarity 100.0%; Pred. No. 2e-103;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
 DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
 QY 61 MDVLPSCWISSEMVMVQLSDSLTDLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
 DB 61 MDVLPSCWISSEMVMVQLSDSLTDLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
 QY 121 KDLKSFKSPPEPLFTPEEFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
 DB 121 KDLKSFKSPPEPLFTPEEFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
 QY 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208
 DB 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208
 RESULT 13
 ADP99316
 ID ADP99316 standard; protein; 208 AA.
 XX
 AC ADP99316;
 XX
 DT 23-SEP-2004 (first entry)
 XX Human stem cell factor, SCF, protein #2.
 DE Human; SCF; stem cell factor; gene therapy;
 KW haematopoietic progenitor cell; aplastic anaemia;
 KW paroxysmal nocturnal haemoglobinuria; myelofibrosis; myelocytocytosis;
 KW osteopetrosis; metastatic carcinoma; acute leukaemia; multiple myeloma;
 KW Hodgkin's disease; lymphoma; Gaucher's disease; Niemann-Pick disease;
 KW Letterer-Siwe disease; refractory erythroid blastosis; anaemia;
 KW Di Guglielmo syndrome; congestive splenomegaly; Kala awar; sarcoidosis;
 KW primary splenic pancytopenia; myeloid leukaemia;
 KW disseminated fungus disease; fulminating septicaemia; malaria;
 KW vitamin B12 deficiency; folic acid deficiency; pyridoxine deficiency;
 KW Diamond Blackfan anaemia; hypopigmentation disorder; piebaldism;
 KW vitiligo; neurological damage; infertility; intestinal damage;
 KW irradiation; chemotherapy; AIDS; haematopoietic recovery;
 KW acute blood loss; neoplasm; cancer.
 XX
 OS Homo sapiens.
 XX
 FH Location/Qualifiers
 FT Peptide 1..25 /note= "Signal peptide"
 FT Protein 26..208 /note= "Mature SCF"
 FT
 FT
 XX US6759215-B1.
 XX 06-JUL-2004.
 PD
 XX 07-AUG-2000; 2000US-00635251.
 XX

PR 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.
 PR 24-AUG-1990; 90US-00573616.
 PR 01-OCT-1990; 90US-00589701.
 PR 10-APR-1991; 91US-00684535.
 PR 25-NOV-1992; 92US-00982255.
 PR 21-DEC-1993; 93US-00172329.
 PR 24-MAY-1995; 95US-00449182.
 XX (AMGE-) AMGEN INC.
 PA
 XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
 PI WPI; 2004-497128/47.
 XX N-PSDB; ADP99315.
 DR
 XX Preparing a human stem cell factor (SCF) polypeptide, useful for treating
 PT hematopoietic disorders, e.g., aplastic anemia, comprises growing host
 PT cells transformed or transfected with DNA encoding a human SCF.
 XX
 PS Claim 1; SEQ ID NO 46; 210pp; English.
 PS
 XX The invention relates to preparing a (vertebrate) human stem cell factor
 CC (SCF) polypeptide comprising growing host cells transformed or
 CC transfected with DNA encoding a human SCF that stimulates growth of
 CC haematopoietic progenitor cells under nutrient conditions, the DNA being
 CC operatively linked to an expression control sequence, and isolating the
 CC polypeptide produced. Also included is a recombinant host cell
 CC transformed or transfected with an expression construct comprising a
 CC vertebrate SCF polypeptide-encoding DNA operatively linked to a
 CC heterologous expression regulatory sequence, permitting the expression of
 CC the vertebrate SCF polypeptide in the host cell. Disclosed as new are rat
 CC and human nucleic acids encoding SCF, SCF proteins from a number of other
 CC mammals and recombinantly expressed SCF protein fragments. The DNA
 CC sequences are useful for effecting the large scale synthesis of SCF by a
 CC variety of recombinant techniques or for generating new and useful viral
 CC and circular plasmid DNA vectors, new and useful transformed and
 CC transfected prokaryotic and eukaryotic host cells, and new and useful
 CC methods for cultured growth of such host cells capable of expression of
 CC SCF and its related products. The DNA sequences are also useful as
 CC labelled probes in isolating human genomic DNA encoding SCF, in methods
 CC of protein synthesis, in genetic therapy in humans and other mammals, and
 CC in developing transgenic mammalian species which may serve as eukaryotic
 CC hosts for production of SCF and SCF products in quantity. The SCF is
 CC useful for treating haematopoietic disorders, e.g., aplastic anaemia,
 CC paroxysmal nocturnal haemoglobinuria, myelofibrosis, myeloclerosis,
 CC osteopetrosis, metastatic carcinoma, acute leukaemia, multiple myeloma,
 CC Hodgkin's disease, lymphoma, Gaucher's disease, Niemann-Pick disease,
 CC Letterer-Siwe disease, refractory erythroid blastoma, Di Guglielmo
 CC syndrome, congestive splenomegaly, Kala awar, sarcoidosis, primary
 CC splenic pancytopenia, military tuberculosis, disseminated fungus disease,
 CC Fulminating septicemia, malaria, vitamin B 12 and folic acid deficiency,
 CC pyridoxine deficiency, Diamond Blackfan anaemia, and hypopigmentation
 CC disorders such as piebaldism and vitiligo. The SCF are also useful for
 CC treating neurological damage, infertility states, intestinal damage
 CC resulting from irradiation or chemotherapy, and AIDS. SCF is also useful
 CC for enhancing haematopoietic recovery after acute blood loss and as a
 CC boost to the immune system for fighting neoplasia (cancer). The present
 CC sequence is a human SCF protein sequence (partial or full length).
 XX
 SQ Sequence 208 AA;

Query Match 100.0%; Score 1061; DB 8; Length 208;
 Best Local Similarity 100.0%; Pred. No. 2e-103;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYQLQLLPNPLVKTGICRNRVTNNVKDVTXKLVANLPKDYMITLKYVPG 60
 DB
 1 MKKTQTWLTCTIYQLQLLPNPLVKTGICRNRVTNNVKDVTXKLVANLPKDYMITLKYVPG 60
 QY 61 MDVLPSCWISWVQVLSLTDLLDKFNSISGLSNYSIIDKLVNIVDDLVECKVENS 120
 DB 61 MDVLPSCWISWVQVLSLTDLLDKFNSISGLSNYSIIDKLVNIVDDLVECKVENS 120

QY 121 KDLKKSFKSPPEPRLFTPEFFRIFNRSIDAFKDFVVASETSCVVSSTLSPKDSRVSVT 180
 DB 121 KDLKKSFKSPPEPRLFTPEFFRIFNRSIDAFKDFVVASETSCVVSSTLSPKDSRVSVT 180
 QY 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208
 DB 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208

RESULT 14

ADUS0646
 ID ADUS0646 standard; protein; 208 AA.
 XX
 AC ADUS0646;
 XX
 DT 13-JAN-2005 (first entry)
 XX
 DE Human stem cell factor, full length protein #1.
 XX
 KW Human; stem cell factor; SCF; haematopoietic;
 KW HT1080 fibrosarcoma cell line; 5637 bladder carcinoma cell line;
 KW leukaemia; thrombocytopaenia; anaemia; bone marrow during transplant;
 KW bone marrow aplasia; myelosuppression; immune deficiency; neoplasm;
 KW nerve damage; infertility; intestinal damage;
 KW myeloproliferative disorder; early haematopoietic progenitor cell;
 KW haematopoietic disorders; aplastic anaemia; myelofibrosis;
 KW Hodgkin's disease; osteopetrosis; metastatic carcinoma; multiple myeloma;
 KW Diamond-Blackfan anaemia; lymphoma; Gaucher's disease; Niemann-Pick disease;
 KW acute blood loss.
 KW
 OS Homo sapiens.
 XX
 PN US2004181044-A1.
 XX
 PD 16-SEP-2004.
 XX
 PF 19-JUN-2002; 2002US-00175608.
 XX
 PR 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.
 PR 24-AUG-1990; 90US-00573616.
 PR 01-OCT-1990; 90US-00589701.
 PR 10-APR-1991; 91US-00684535.
 PR 25-NOV-1992; 92US-00982255.
 PR 21-DEC-1993; 93US-00172329.
 PR 07-JUN-1995; 95US-00486546.
 PR 07-AUG-2000; 2000US-00635249.
 XX (ZSEB/) ZSEBO K M.
 PA (BOSS/) BOSSLMAN R A.
 PA (SUGG/) SUGGS S V.
 PA (MART/) MARTIN F H.
 XX
 PI Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
 XX WPI; 2004-707481/59.
 XX
 PT Novel stem cell factor (SCF) such as non-naturally-occurring SCF or
 PT naturally occurring SCF, useful for treating leukaemia,
 PT thrombocytopaenia, anemia, and enhancing engraftment of bone marrow during
 PT transplantation.
 XX
 PS Claim 9; SEQ ID NO 46; 216pp; English.
 XX

The invention relates to a stem cell factor (SCF) such as non-naturally-occurring SCF having an amino acid sequence sufficiently duplicative of that of naturally occurring SCF to allow possession of a haematopoietic biological activity of naturally occurring stem cell factor, or naturally occurring SCF. Also included are an isolated DNA sequence for use in securing expression in a prokaryotic or eukaryotic host cell of non-naturally occurring SCF, a prokaryotic or eukaryotic host cell


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Query Match      100.0%; Score 1061; DB 9; Length 208;
Best Local Similarity 100.0%; Pred. No. 2e-103;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWILTCTIYQLLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYYVG 60
   |||||||
Db 1 MKKTQTWILTCTIYQLLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYYVG 60
   |||||||

QY 61 MDVLPCHCWISEMNVQLSDSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVCEVKENSS 120
   |||||||
Db 61 MDVLPCHCWISEMNVQLSDSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVCEVKENSS 120
   |||||||

QY 121 KDLKKSFKSPPEPLFTPEEFFRIFNRSIDAPKDFVVASETSDCVVSSTLSPEKDSRVSVT 180
   |||||||
Db 121 KDLKKSFKSPPEPLFTPEEFFRIFNRSIDAPKDFVVASETSDCVVSSTLSPEKDSRVSVT 180
   |||||||

QY 181 KPFMLPPVAASSLRNDSSSNKYIYLI 208
   |||||||
Db 181 KPFMLPPVAASSLRNDSSSNKYIYLI 208
   |||||||
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Search completed: February 22, 2006, 18:12:59
Job time : 125.336 secs

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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 22, 2006, 18:13:23 ; Search time 17.1901 Seconds
(without alignments)
1164.223 Million cell updates/sec

Title: US-10-620-642-46
Perfect score: 1061
Sequence: 1 MKKTQTWLTCTIYQLLLFN.....AASSLRNDSNSSNKIYILI 208
Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues
Total number of hits satisfying chosen parameters: 283416
Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR 80: *
1: pir1: *
2: pir2: *
3: pir3: *
4: pir4: *

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1030	97.1	273	2 A35974	mast cell growth f
2	899.5	84.8	274	2 I46575	c-kit ligand - pig
3	890	83.9	245	2 B61190	mast cell growth f
4	886.5	83.6	274	2 S47571	stem cell factor,
5	885.5	83.5	202	2 S58313	stem cell factor p
6	862.5	81.3	274	2 I46929	stem cell factor -
7	857	80.8	201	2 B35974	stem cell growth f
8	855	80.6	273	2 S65801	mast cell growth f
9	715	67.4	245	2 A37934	mast cell growth f
10	576.5	54.3	124	2 S29052	stem cell factor -
11	570.5	53.8	287	2 S70366	stem cell factor 1
12	562.5	53.0	287	2 JN0637	stem cell factor p
13	479.5	45.2	253	2 S70367	stem cell factor s
14	175.5	16.5	51	2 B35971	mast cell growth f
15	172.5	16.3	49	2 A35971	mast cell growth f
16	97.5	9.2	1490	2 T16086	hypothetical prote
17	97	9.1	1447	2 F82909	hypothetical prote
18	94	8.9	1293	2 T27886	hypothetical prote
19	94	8.9	1813	2 T19295	hypothetical prote
20	92.5	8.7	164	2 B69616	cell-division init
21	92.5	8.7	512	2 G86773	citrates (pro-3S)-1
22	92	8.7	935	2 S63261	SEC21 protein - ye
23	91	8.6	1107	2 S61667	probable membrane
24	90.5	8.5	616	2 A69136	ATP-dependent Clp
25	89	8.4	1734	2 A41101	phorbol ester-bind
26	88.5	8.3	545	2 B44054	orf2 protein - Jun
27	88.5	8.3	941	2 H84855	phosphoenolpyruvat
28	88	8.3	335	2 S44922	K18 antigen - Enta
29	88	8.3	465	2 H97165	flagellar hook-len

30	88	8.3	702	2 F97352	membrane-associate
31	88	8.3	1690	2 T31670	DNA-directed RNA p
32	87.5	8.2	649	2 T04005	probable protein k
33	87.5	8.2	966	2 S26235	phosphoenolpyruvat
34	87	8.2	664	2 T16411	hypothetical prote
35	86.5	8.2	246	2 T19850	hypothetical prote
36	86.5	8.2	436	2 F86486	protein F28J9.3 [1
37	86.5	8.2	844	2 S61104	BRO1 protein - yea
38	86.5	8.2	1271	2 T08607	hypothetical prote
39	86	8.1	246	1 A64579	molybdenum ABC tra
40	86	8.1	496	2 G86887	threonine synthase
41	86	8.1	660	2 T22794	hypothetical prote
42	86	8.1	1334	2 T19493	hypothetical prote
43	85.5	8.1	222	2 T29762	hypothetical prote
44	85.5	8.1	614	2 B86461	probable protein k
45	85.5	8.1	636	2 A45949	merozoite surface

ALIGNMENTS

RESULT 1

A35974
mast cell growth factor precursor - human
N:Alternate names: kit ligand, stem cell factor
C:Species: Homo sapiens (man)
C:Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
C:Accession: A35974; A61190
R:Martin, P.H.; Suggs, S.V.; Langley, K.E.; Lu, H.S.; Ting, J.; Okino, K.H.; Morris, C.
S, J.C.; Patel, A.C.; Fisher, E.F.; Erjavec, H.O.; Herrera, C.O.; Wypych, J.; Sachdev,
Cell 63, 203-211, 1990
A:Title: Primary structure and functional expression of rat and human stem cell factor
A:Reference number: A35974; MUID:91004219; PMID:2208279
A:Accession: A35974
A:Molecule type: mRNA
A:Residues: 1-273 <MAR>
A:Cross-references: UNIPROT:P21583; UNIPARC:UPI000002D482; GB:M59864; NID:G337933; PIDN
R:Anderson, D.M.; Williams, D.E.; Tushinski, R.; Gimpel, S.; Eisenman, J.; Cannizzaro, J.
Cell Growth Differ. 2, 373-378, 1991
A:Title: Alternate splicing of mRNAs encoding human mast cell growth factor and localiz
A:Reference number: A61190; MUID:92127291; PMID:1724381
A:Accession: A61190
A:Status: nucleic acid sequence not shown; not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 1-273 <AND>
A:Cross-references: UNIPARC:UPI000002D482
C:Genetics:
A:Gene: GDB:MGF
A:Cross-references: GDB:128026; OMIM:184745
A:Map position: 12q22-12q22
C:Superfamily: mouse mast cell growth factor
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-273/Product: mast cell growth factor #status predicted <MCS>
F:26-189/Product: (or 26-190) mast cell growth factor, soluble form #status predicted <TMM>
F:215-237/Domain: transmembrane #status predicted <TMM>
F:90,97,118,145,195/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match	97.1%	Score	1030	DB	2	Length	273
Best Local Similarity	99.5%	Pred. No.	4.2e-74				
Matches	202	Conservative	0	Mismatches	1	Indels	0
QY	1	MKKTQTWLTCTIYQLLLFNPLVKTEGICRNKRVTVNNKDVTKLVANLPKDYMITLKYPVG	60				
Db	1	MKKTQTWLTCTIYQLLLFNPLVKTEGICRNKRVTVNNKDVTKLVANLPKDYMITLKYPVG	60				
QY	61	MDVLFPSHCWISWVQVLSDSLTLDDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS	120				
Db	61	MDVLFPSHCWISWVQVLSDSLTLDDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS	120				
QY	121	KDLKGSFKSPBRLTPPEFFRIFNRSIDAFKDFVVASETSDCVSVSSTLSPKDSRVSVT	180				
Db	121	KDLKGSFKSPBRLTPPEFFRIFNRSIDAFKDFVVASETSDCVSVSSTLSPKDSRVSVT	180				

	Matches	173;	Conservative	0;	Mismatches	0;	Indels	0;	Gaps	0;
QY	1	MKKTQTWILTCIYLQLLFPNPLVKTEGICRNRVTNNVQDVKLVANLPKDYMITLKTVPG	60							
Db	1	MKKTQTWILTCIYLQLLFPNPLVKTEGICRNRVTNNVQDVKLVANLPKDYMITLKTVPG	60							
QY	61	MDVLPSHCWISWMVOLSDSLTDLDFKFSNISSEGLSNYSIIDKLVINIVDDLVECVKENSS	120							
Db	61	MDVLPSHCWISWMVOLSDSLTDLDFKFSNISSEGLSNYSIIDKLVINIVDDLVECVKENSS	120							
QY	121	KOLKKSFKSPPEPRLPTEPEFFRIFNRSIDAFKDFVVASETSDCVSSTLSPEK	173							
Db	121	KOLKKSFKSPPEPRLPTEPEFFRIFNRSIDAFKDFVVASETSDCVSSTLSPEK	173							
 RESULT 4										
S47571	stem cell factor, longer isoform - bovine									
C:	Species: Bos primigenius taurus (cattle)									
C:	Date: 27-Jan-1995 #sequence_revision 27-Jan-1995 #text_change 09-Jul-2004									
C:	Accession: S47571									
R:	Zhou, J.H.; Hikono, H.; Ohtaki, M.; Kubota, T.; Sakurai, M.									
Biochim.	Biophys. Acta 1223, 148-150, 1994									
A:	Title: Cloning and characterization of cDNAs encoding two normal isoforms of									
A:	Reference number: S47571; UID:94339176; PMID:7520283									
A:	Accession: S47571									
A:	Status: preliminary									
A:	Molecule type: mRNA									
A:	Residues: 1-274 >ZHO>									
A:	Cross-references: UNIPROT:Q28132; UNIPARC:UPI0000135639; EMBL:D28934; NID:953									
C:	Superfamily: mouse mast cell growth factor									
Query Match	83.6%; Score 886.5; DB 2; Length 274;									
Best Local Similarity	85.3%; Pred. No. 9.1e-63;									
Matches	174;	Conservative	16;	Mismatches	13;	Indels	1;	Gaps	1;	
QY	1	MKKTQTWILTCIYLQLLFPNPLVKTEGICRNRVTNNVQDVKLVANLPKDYMITLKTVPG	60							
Db	1	MKKTQTWILTCIYLQLLFPNPLVKTEGICRNRVTDDVKVTLVANLPKDYMITLKTVPG	60							
QY	61	MDVLPSHCWISWMVOLSDSLTDLDFKFSNISSEGLSNYSIIDKLVINIVDDLVECVKENSS	120							
Db	61	MDVLPSHCWISWMVEQLSVSLTDLDFKFSNISSEGLSNYCIIIDLKVIVDDLVECMESHSS	120							
QY	121	KOLKKSFKSPPEPRLPTEPEFFRIFNRSIDAFKDF-VVASETSDCVSSTLSPEKDSRVSV	179							
Db	121	ENVKSKSPPEPKQFTPEKEFGFIKNKSIDAFKOLEIVASKWSECVISSTSSPEKDSRVSV	180							
QY	180	TKPFMLPPVAAASLRNDSSSSNSGK	203							
Db	181	TKPFMLPPVAAASLRNDSSSSNEK	204							
 RESULT 5										
S58313	stem cell factor precursor - sheep (fragment)									
C:	Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)									
C:	Date: 14-Jan-1996 #sequence_revision 01-Mar-1996 #text_change 09-Jul-2004									
C:	Accession: S58313									
R:	McInnes, C.J.; Logan, M.; Falconer, V.M.; Rawlins, P.; Huntly, J.; Haig, D.									
Biochim.	Biophys. Acta 1223, 148-150, 1994									
A:	Title: Cloning and characterization of cDNAs encoding two normal isoforms of									
A:	Reference number: S58313									
A:	Accession: S58313									
A:	Status: preliminary									
A:	Molecule type: mRNA									
A:	Residues: 1-202 <MCI>									
A:	Cross-references: UNIPROT:p79368; UNIPARC:UPI000016C4E5; EMBL:Z50743; NID:994									
C:	Superfamily: mouse mast cell growth factor									

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISVMVQSLDSDLTDLDFKFSNISSEGLSNYSIIDKLVNIYVDDLVECKENSS 120
Db 61 MDVLPSCWISVMVQSLDSDLTDLDFKFSNISSEGLSNYSIIDKLVNIYVDDLVECKENSS 120
QY 121 KDLKSKSPKSPRLFTPEEFRIFNRSIDAFKDF-VVASETSDCVVSSSTLSPKDSRVSV 179
Db 121 ENVKSSKSPRLFTPEEFRIFNRSIDAFKDF-VVASETSDCVVSSSTLSPKDSRVSV 180
QY 180 TKPFMLPPVAASSLRNDSSSN 201
Db 181 TKPFMLPPVAASSLRNDSSSN 202
RESULT 6
146929
stem cell factor - dog
C:Species: Canis lupus familiaris (dog)
C:Date: 04-Sep-1997 #sequence_revision 04-Sep-1997 #text_change 09-Jul-2004
R:Shull, R.M.; Suggs, S.V.; Langley, K.E.; Okino, K.H.; Jacobsen, F.W.; Martin, F.H.
Exp. Hematol. 20, 1118-1124, 1992
A:Title: Canine stem cell factor (c-kit ligand) supports the survival of hematopoietic B
A:Reference number: 146929; PMID:93106145; PMID:1281786
A:Accession: 146929
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-274 <SHU>
A:Cross-references: UNIPROT:Q06220; UNIPARC:UPI000013563A; GB:S53329; NID:G262240; PIDN:
C:Superfamily: mouse mast cell growth factor
Query Match 81.3%; Score 862.5; DB 2; Length 274;
Best Local Similarity 84.8%; Pred. No. 7.1e-61;
Matches 173; Conservative 13; Mismatches 17; Indels 1; Gaps 1;
QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISVMVQSLDSDLTDLDFKFSNISSEGLSNYSIIDKLVNIYVDDLVECKENSS 120
Db 61 MDVLPSCWISVMVQSLDSDLTDLDFKFSNISSEGLSNYSIIDKLVNIYVDDLVECKEYGF 120
QY 121 KDLKSKSPKSPRLFTPEEFRIFNRSIDAFKDF-VVASETSDCVVSSSTLSPKDSRVSV 179
Db 121 ENVKKAPKSPRLFTPEEFRIFNRSIDAFKDF-VVASETSDCVVSSSTLSPKDSRVSV 180
QY 180 TKPFMLPPVAASSLRNDSSSN 203
Db 181 TKPFMLPPVAASSLRNDSSSNRK 204
RESULT 7
B35974
stem cell factor protein precursor - rat (fragment)
C:Species: Rattus norvegicus (Norway rat)
C:Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
A:Accession: B35974; A39805
R:Martin, F.H.; Suggs, S.V.; Langley, K.E.; Lu, H.S.; Ting, J.; Okino, K.H.; Morris, C.F.
8, J.C.; Patel, A.C.; Fisher, E.F.; Erjavec, H.O.; Herrera, C.J.; Wypych, J.; Sachdev, R.
Cell 63, 203-211, 1990
A:Title: Primary structure and functional expression of rat and human stem cell factor D
A:Reference number: A35974; PMID:91004219; PMID:2208279
A:Accession: B35974
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-201 <MAR>
A:Cross-references: UNIPROT:P21581; UNIPARC:UPI0000144090; GB:M59966; NID:G206861; PIDN:
R/Lu, H.S.; Clogston, C.L.; Wypych, J.; Fauseet, P.R.; Lauren, S.; Mendiaz, E.A.; Zsebo,

J. Biol. Chem. 266, 8102-8107, 1991
A:Title: Amino acid sequence and post-translational modification of stem cell factor iso
A:Reference number: A39805; MUID:91217037; PMID:1708771
A:Accession: A39805
A:Status: preliminary
A:Molecule type: protein
A:Residues: E, 27-190 <LUA>
A:Cross-references: UNIPARC:UPI000014F57C
C:Superfamily: mouse mast cell growth factor
Query Match 80.8%; Score 857; DB 2; Length 201;
Best Local Similarity 82.6%; Pred. No. 1.3e-60;
Matches 166; Conservative 15; Mismatches 20; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVAG 60
QY 61 MDVLPSCWISVMVQSLDSDLTDLDFKFSNISSEGLSNYSIIDKLVNIYVDDLVECKENSS 120
Db 61 MDVLPSCWLRDMVTHLSVSLTTLDFKFSNISSEGLSNYSIIDKLGKIVDDLVACNEENAP 120
QY 121 KDLKSKSPKSPRLFTPEEFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPKDSRVSV 180
Db 121 KNVKSLLKSPTRFTPEEFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPKDSRVSV 180
QY 181 KPFLMLPPVAASSLRNDSSSN 201
Db 181 KPFLMLPPVAASSLRNDSSSN 201
RESULT 8
S65801
mast cell growth factor - mouse
N:Alternate names: hematopoietic growth factor KL; ligand steel factor; stem cell facto
C:Species: Mus musculus (house mouse)
C:Date: 28-Oct-1996 #sequence_revision 27-Feb-1997 #text_change 09-Jul-2004
A:Accession: S65801; A43751; A35976; A35977; A35972; A35975; A35973; 148768
R:Bedell, M.A.; Copeland, N.G.; Jenkins, N.A.
Genetics 142, 927-934, 1996
A:Title: Multiple pathways for Steel regulation suggested by genomic and sequence analy
A:Reference number: S65801; MUID:97002551; PMID:8849898
A:Accession: S65801
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-273 <BED>
A:Cross-references: UNIPROT:P20826; UNIPARC:UPI0000028C9B; EMBL:U44725; NID:gl172215; P
R/Huang, E.J.; Nocka, K.H.; Buck, J.; Besmer, P.
Mol. Biol. Cell 3, 349-362, 1992
A:Title: Differential expression and processing of two cell associated forms of the kit-
A:Reference number: A43751; MUID:92330001; PMID:1378327
A:Accession: A43751
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-214, 'L', 216-273 <HUA>
A:Cross-references: UNIPARC:UPI000014D0C1; GB:S40364; NID:G251668; PIDN:AAB22554.2; PID
R/Huang, E.; Nocka, K.; Beier, D.R.; Chu, T.Y.; Buck, J.; Lahm, H.W.; Wellner, D.; Leder
Cell 63, 225-233, 1990
A:Title: The hematopoietic growth factor KL is encoded by the Sl locus and is the ligan
A:Reference number: A35976; MUID:91004221; PMID:1698557
A:Accession: A35976
A:Status: preliminary; not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 1-206, 'S', 208-270 <HU2>
A:Cross-references: UNIPARC:UPI000017955D; GB:M38511
R/Anderson, D.M.; Lyman, S.D.; Baird, A.; Wignall, J.M.; Eisenman, J.; Rauch, C.; March,
Cell 63, 235-243, 1990
A:Title: Molecular cloning of mast cell growth factor, a hematopoietin that is active in
A:Reference number: A35977; MUID:91004223; PMID:1698558
A:Accession: A35977
A:Status: preliminary
A:Molecule type: mRNA

A;Residues: 1-273 <AND>
A;Cross-references: UNIPARC:UPI0000028C9B; GB:M57647; NID:g199151; PIDN:AAA39
R;Copeland, N.G.; Gilbert, D.J.; Cho, B.C.; Donovan, P.J.; Jenkins, N.A.; Cosman, D.; An
Cell 63, 175-183, 1990
A;Title: Mast cell growth factor maps near the steel locus on mouse chromosome 10 and is
A;Reference number: A35972; MUID:91004216; PMID:1698554
A;Accession: A35972
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 26-53 <COP>
A;Cross-references: UNIPARC:UPI000017955E; GB:M59912
R;Zsebo, K.M.; Williams, D.A.; Geisler, E.N.; Broudy, V.C.; Martin, F.H.; Atkins, H.L.;
Cattanach, B.M.; Galli, S.J.; Suggs, S.V.
Cell 63, 213-224, 1990
A;Title: Stem cell factor is encoded at the Sl locus of the mouse and is the ligand for
A;Reference number: A35975; MUID:91004220; PMID:1698556
A;Accession: A35975
A;Molecule type: mRNA
A;Residues: 1-201 <ZSE>
A;Cross-references: UNIPARC:UPI000016D02D; GB:M59915; NID:g200935; PIDN:AAA40095.1; PID:
R;Zsebo, K.M.; Wypych, J.; McNiece, I.K.; Lu, H.S.; Smith, K.A.; Karkare, S.B.; Sachdev,
A.; Langley, K.E.
Cell 63, 195-201, 1990
A;Title: Identification, purification, and biological characterization of hematopoietic
A;Reference number: A35973; MUID:91004218; PMID:2208278
A;Accession: A35973
A;Status: preliminary
A;Molecule type: protein
A;Residues: 27-29, 'R', 31-39 <ZS2>
A;Cross-references: UNIPARC:UPI000017955F
R;Brannan, C.I.; Bedell, M.A.; Resnick, J.L.; Eppig, J.J.; Handel, M.A.; Williams, D.E.;
Genes Dev. 6, 1832-1842, 1992
A;Title: Developmental abnormalities in Steel17H mice result from a splicing defect in c
A;Reference number: A44071; MUID:93012940; PMID:1384087
A;Accession: I48768
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-206, 'S', 208-273 <RES>
A;Cross-references: UNIPARC:UPI000016CA07; EMBL:X68989; NID:g395283; PIDN:CAA48778.1; PI
C;Genetics:
A;Gene: SLF
A;Map position: 10
A;Superfamily: mouse mast cell growth factor
C;Keywords: extracellular protein; glycoprotein; transmembrane protein

Query Match 80.6%; Score 855; DB 2; Length 273;
Best Local Similarity 82.3%; Pred. No. 2.8e-60;
Matches 167; Conservative 16; Mismatches 20; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTIYQLQLLFNPLVKTGICRNVTVNNVDVKLVANLPKDYMITLKYPVG 60
Db 1 MKKTQTWLTCTIYQLQLLFNPLVKTGICRNVTVNNVDVKLVANLPKDYMITLKYPVG 60

Qy 61 MDVLPSCWISWMVQVLSLTDLLDKFNSISSEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
Db 61 MDVLPSCWLRDMVQLSLTLLDKFNSISSEGLSNYSIIDKLVNIVDDLVCEVKENAP 120

Qy 121 KDLKSKSPKPEPRLPFPPEFFRIFNRSIDAFKDFVAVSETSDCVSVSSTLSPEK 180
Db 121 KDLKSKSPKPEPRLPFPPEFFRIFNRSIDAFKDFVAVSETSDCVSVSSTLSPEK 180

Qy 181 KPFMLPPVAASLRNDSSSSNRK 203
Db 181 KPFMLPPVAASLRNDSSSSNRK 203

RESULT 9
A37934
mast cell growth factor precursor (version 2) - mouse
N;Alternate names: KL-2 protein
C;Species: Mus musculus (house mouse)
C;Date: 26-Jul-1991 #sequence_revision 26-Jul-1991 #text_change 09-Jul-2004
C;Accession: A37934; B43751

R;Flanagan, J.G.; Chan, D.C.; Leder, P.
Cell 64, 1025-1035, 1991
A;Title: Transmembrane form of the kit ligand growth factor is determined by alternative
A;Reference number: A37934; MUID:91160046; PMID:1705866
A;Accession: A37934
A;Molecule type: mRNA
A;Residues: 1-245 <FLA>
A;Cross-references: UNIPROT:P20826; UNIPARC:UPI000002B352; GB:M64262
R;Huang, E.J.; Nocka, K.H.; Buck, J.; Beemer, P.
Mol. Biol. Cell 3, 349-362, 1992
A;Title: Differential expression and processing of two cell associated forms of the kit-
A;Reference number: A43751; MUID:92330001; PMID:1378327
A;Accession: B43751
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-173, 'R', 175-186, 'L', 188-245 <HUA>
A;Cross-references: UNIPARC:UPI0000179560; GB:S04534
A;Note: the authors translated the codon TTG for residue 187 as Trp
C;Superfamily: mouse mast cell growth factor

Query Match 67.4%; Score 715; DB 2; Length 245;
Best Local Similarity 79.8%; Pred. No. 2.8e-49;
Matches 138; Conservative 16; Mismatches 19; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTIYQLQLLFNPLVKTGICRNVTVNNVDVKLVANLPKDYMITLKYPVG 60
Db 1 MKKTQTWLTCTIYQLQLLFNPLVKTGICRNVTVNNVDVKLVANLPKDYMITLKYPVG 60

Qy 61 MDVLPSCWISWMVQVLSLTDLLDKFNSISSEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
Db 61 MDVLPSCWLRDMVQLSLTLLDKFNSISSEGLSNYSIIDKLVNIVDDLVCEVKENAP 120

Qy 121 KDLKSKSPKPEPRLPFPPEFFRIFNRSIDAFKDFVAVSETSDCVSVSSTLSPEK 173
Db 121 KDLKSKSPKPEPRLPFPPEFFRIFNRSIDAFKDFVAVSETSDCVSVSSTLSPEK 173

RESULT 10
S29052
stem cell factor - human (fragments)
C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 09-Jul-2004
C;Accession: S29052
R;Lu, H.S.; Clogston, C.L.; Wypych, J.; Parker, V.P.; Lee, T.D.; Swiderek, K.; Baltera J
; Langley, K.E.
Arch. Biochem. Biophys. 298, 150-158, 1992
A;Title: Post-translational processing of membrane-associated recombinant human stem cel
A;Reference number: S29052; MUID:92398336; PMID:1381905
A;Accession: S29052
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-13;14-30;31-46;47-59;60-86;87-95;96-107;108-124 <LUH>
A;Cross-references: UNIPROT:Q7M4N8; UNIPARC:UPI0000179563; UNIPARC:UPI0000179564; UNIPAR
IPARC:UPI0000179564
C;Superfamily: mouse mast cell growth factor

Query Match 54.3%; Score 576.5; DB 2; Length 124;
Best Local Similarity 75.2%; Pred. No. 1e-38;
Matches 124; Conservative 0; Mismatches 0; Indels 41; Gaps 4;

Qy 26 EGICRNVTVNNVDVKLVANLPKDYMITLKYPVGMVDVLPSCWISWMVQVLSLTDLL 85
Db 1 EGICRNVTVNNV-----DVLPSHCWISWMVQVLS-----30

Qy 86 DKFNSISSEGLSNYSIIDKLVNIVDDLVCEVKENSKDLKKGFKSPKPEPRLPFPPEFFRIFN 145
Db 31 DKFNSISSEGLSNYSII-----DDLVECVKENSSEGLSNYSIIDKLVNIVDDLVCEVKENSKDLKKGFKSPKPEPRLPFPPEFFRIFN 83

Qy 146 RSIDAFKDFVAVSETSDCVSVSSTLSPEKDSRVSVTVTKPFMLPPVAA 190
Db 84 RSI-----DFVAVSETSDCVSVSSTLSPEKDSRVSVTVTKPFMLPPVAA 124


```

QY 118 NSSKD-LKSKFSKPEPRLFTPEEPFRNRSIDAFKDFVVASSETSCVSVSTL-SPEKDS 175
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 121 DKNKDFIKENGHLYBEDRIPENFFLEFNSTIEVYKEFADSLDKNDICMPSTVETPENDS 180
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 176 RVSVTKPFMLPPVAASSLRNDSSSNS 202
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 181 RVAATKTIISFPFVAASSLRNDISGSNT 207
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

RESULT 13
S70367
stem cell factor short form precursor - qual
C:Species: Coturnix coturnix (qual)
C:Date: 06-Dec-1996 #sequence_revision 25-Apr-1997 #text_change 21-Jul-2000
C:Accession: S70367
R:Petitte, J.N.; Kulik, M.J.
Biochim. Biophys. Acta 1307, 149-151, 1996
A:Title: Cloning and characterization of cDNAs encoding two forms of avian stem
A:Reference number: S70366; MUID:96283808; PMID:8679698
A:Accession: S70367
A:Molecule type: mRNA
A:Residues: 1-253 <P>
A:Cross-references: UNIPARC:UPI000002B34F; EMBL:U43079; NID:g1150877; PIDN:AAEC5
C:Superfamily: mouse mast cell growth factor
P:1-25/Domain: signal sequence #status predicted <SIG>
F:26-253/Product: stem cell factor short form #status predicted <MAT>
F:192-216/Domain: transmembrane #status predicted <TM>

Query Match 45.2%; Score 479.5; DB 2; Length 253;
Best Local Similarity 46.9%; Pred. No. 1.2e-30;
Matches 100; Conservative 42; Mismatches 58; Indels 13; Gaps 4;

QY 1 MKKTQTWITCTCYLOLLFNPLVKTGICBNRTNNVQDVKLVANLPKDYMITLKVPK 60
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 1 MKKAQTWITCTCYLOLLFNPLVKTGICBNRTNNVQDVKLVANLPKDYMITLKVPK 60
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 61 MDVLPSCHWISEMVVQLSDLTDLBKF--SNISEGLSNYSIIDKLNIIVDDLVECVKE 117
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 61 MDSLPNHCWHLMVPEFSRLNLQKFVDSIDMSDVLSNYSIINNLRIINDLMACIAP 120
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 118 NSSKD-LKSKFSKPEPRLFTPEEPFRNRSIDAFKDFVVASSETSCVSVSTL-SPEKDS 175
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 121 DKNKDFIKENGHLYBEDRIPENFFLEFNSTIEVYKEFADSLDKNDICMPSTVETPENDS 180
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 176 RVSVTKPFMLPPVAASSLRNDSSSNSKIYLI 208
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 181 ALGF-----ISSSSLQIGIATLTSLSLLI 205
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

RESULT 14
B35971
mast cell growth factor - mouse (fragment)
C:Species: Mus musculus (house mouse)
C:Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
C:Accession: B35971
R:Williams, D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Ness, K.; March, C.J.
Cell 63, 167-174, 1990
A:Title: Identification of a ligand for the c-kit proto-oncogene.
A:Reference number: A35971; MUID:91004215; PMID:1698553
A:Accession: B35971
A>Status: preliminary
A:Molecule type: protein
A:Residues: 1-51 <WIL>
A:Cross-references: UNIPROT:P20826; UNIPARC:UPI00000179562
C:Superfamily: mouse mast cell growth factor
C:Keywords: transmembrane protein

Query Match 16.5%; Score 175.5; DB 2; Length 51;
Best Local Similarity 72.3%; Pred. No. 1.6e-07;
Matches 34; Conservative 5; Mismatches 7; Indels 1; Gaps 1;

```

Qy 28 ICRNRTNNVDVTKLVANLPKDYMITLKYPGMDVLPSCWISMVVQ 74
 Db 3 ICGNPVTNDVTKLVANLPNDYMITLNYVAGMDVLPSS--WV-DWVIQ 48

RESULT 15

A35971
 mast cell growth factor - mouse (fragment)
 C:Species: Mus musculus (house mouse)
 C>Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
 C:Accession: A35971
 R:Williams, D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Ness, K.; March, C.J.; Park, I.
 Cell 63, 167-174, 1990
 A:Title: Identification of a ligand for the c-kit proto-oncogene.
 A:Reference number: A35971; MUID:91004215; PMID:1698553
 A:Accession: A35971
 A:Status: preliminary
 A:Molecule type: protein
 A:Residues: 1-49 <WIL>
 A:Cross-references: UNIPROT:P20826; UNIPARC:UPI0000179561
 C:Superfamily: mouse mast cell growth factor
 C:Keywords: transmembrane protein

Query Match 16.3%; Score 172.5; DB 2; Length 49;
 Best Local Similarity 73.5%; Pred. No. 2.6e-07;
 Matches 36; Conservative 4; Mismatches 6; Indels 3; Gaps 2;

Qy 28 ICRNRTNNVDVTKLVANLPKDYMITLKYPGMDVLPSCWISMVVQ 76
 Db 3 ICGNPVTNDVTKLVANLPNDYMITLNYVAGMDVLPSS--WV-DWVIQ 48

Search completed: February 22, 2006, 18:20:26
 Job time : 19.1901 secs

GenCore version 5.1.7
 Copyright (c) 1993 - 2006 Bioceleration Ltd.
 OM protein - protein search, using sw model
 Run on: February 22, 2006, 18:05:51 ; Search time 107.152 Seconds
 (without alignments)
 1369.555 Million cell updates/sec
 Title: US-10-620-642-46
 Perfect score: 1061
 Sequence: 1 MKKTQTWLTCTIYQLLFFN.....AASSLRNDSSSSNSKIYLI 208

Scoring table: BLOSUM62
 Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

UniProt 05.80.*

1: uniprot_sprot.*

2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1030	97.1	273	1	SCF HUMAN
2	908.5	85.6	274	1	SCF FELCA
3	899.5	84.8	274	1	SCF PTG
4	898.5	84.7	274	1	SCF HORSE
5	890	83.9	245	2	Q85Z4 9PRIM
6	889.5	83.8	267	1	SCF SHEEP
7	886.5	83.6	274	1	SCF BOVIN
8	885.5	83.5	274	1	SCF CAPHI
9	862.5	81.3	274	1	SCF CANFA
10	861	81.1	273	1	SCF RAT
11	859.5	81.0	274	1	SCF MUSVI
12	855	80.6	208	2	Q64384 9MURI
13	855	80.6	208	2	Q78ED8 MOUSE
14	855	80.6	273	1	SCF MOUSE
15	835	78.7	164	2	Q84L9 MACMU
16	804	75.8	238	2	Q68D22 HUMAN
17	721	68.0	245	2	Q5A14 RAT
18	576.5	54.3	124	2	Q7M4N8 HUMAN
19	570.5	53.8	287	1	SCF COTJA
20	562.5	53.0	287	1	SCF CHICK
21	509	48.0	123	2	Q61854 MOUSE
22	480	45.2	160	2	Q8C9K1 MOUSE
23	327	30.8	271	2	Q9TGP2 ARNME
24	299.5	28.2	270	2	Q7ZXV0 XENLA
25	273.5	25.8	270	2	Q8AYN7 XENLA
26	270.5	25.5	270	2	Q6DTW3 XENLA
27	184	17.3	272	2	Q56JH6 BRARE
28	149	14.0	234	2	Q4S1A5 TETNG
29	124	11.7	267	2	Q56JH5 BRARE
30	116.5	11.0	1697	2	Q81FM4 PLAF7
31	116.5	11.0	1711	2	Q8MWP2 PLAF4

32 116.5 11.0 1713 2 Q8MWP1 PLAF4
 33 116.5 11.0 1716 2 Q8MWH2 PLAF4
 34 106.5 10.0 1665 2 Q6YA77 PLARE
 35 100 9.4 3072 2 Q92645 CVV
 36 99 9.3 1011 2 Q6FLY9 CANGA
 37 97.5 9.2 880 2 Q54UK3 DICDI
 38 97.5 9.2 1490 2 Q19545 CABEL
 39 97 9.1 373 2 Q75F78 ASHGO
 40 97 9.1 1447 2 Q9PQJ8 UREPA
 41 96.5 9.1 1498 2 Q96VK6 EMENI
 42 96.5 9.1 1498 2 Q9P884 EMENI
 43 96 9.0 1039 1 SC4A RICE
 44 95 9.0 251 2 Q87M34 VIBPA
 45 95 9.0 653 2 Q6FV48 CANGA

ALIGNMENTS

RESULT 1
 ID SCF_HUMAN STANDARD; PRT; 273 AA.
 AC P21583; Q16487; Q9UOK7;
 DT 01-MAY-1991 (Rel. 18, Created)
 DT 01-MAY-1991 (Rel. 18, Last sequence update)
 DE 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Kit ligand precursor (C-kit ligand) (stem cell factor) · (SCF) (Mast
 DE cell growth factor) (MGF).
 GN Name=KITLG; Synonyms=MGF, SCF;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
 OC Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
 RX MEDLINE=91004219; PubMed=2208279; DOI=10.1016/0092-8674(90)90301-T;
 RA Martin F.H., Suggs S.V., Langley K.E., Lu H.S., Ting J., Okino K.H.,
 RA Morris C.P., McNiece I.K., Jacobsen F.W., Mendiaz E.A., Birkett N.C.,
 RA Smith K.A., Johnson M.J., Parker V.P., Flores J.C., Patel A.C.,
 RA Fisher E.P., Erijavec H.O., Herrera C.J., Wypych J., Sachdev R.K.,
 RA Pope J.A., Leslie I., Wen D., Lin C.-H., Cupples R.L., Zsebo K.M.;
 RT "Primary structure and functional expression of rat and human stem
 RT cell factor DNAs.";
 RL Cell 63:203-211(1990).
 RN [2]
 RP NUCLEOTIDE SEQUENCE (ISOFORM 2).
 RX PubMed=1724381; Williams D.E., Tushinski R., Gimpel S., Eisenman J.,
 RA Cannizzaro L.A., Aronson M., Croce C.M., Huebner K., Cosman D.;
 RA "Alternate splicing of mRNAs encoding human mast cell growth factor
 RT and localization of the gene to chromosome 12q22-q24.";
 RL Cell Growth Differ. 2:373-378(1991).
 RN [3]
 RP NUCLEOTIDE SEQUENCE (ISOFORM 2).
 RX MEDLINE=91160429; PubMed=10049787; DOI=10.1006/bbrc.1999.0260;
 RA Blair H.C., Julian B.A., Cao X., Jordan S.E., Dong S.S.;
 RA "Parathyroid hormone-regulated production of stem cell factor in human
 RT osteoblasts and osteoblast-like cells.";
 RL Biochem. Biophys. Res. Commun. 255:778-784(1999).
 RN [4]
 RP NUCLEOTIDE SEQUENCE.
 RA Han C., Peng X., Yuan J., Qiang B.;
 RA Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.
 RN [5]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1).
 RX MEDLINE=2388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altshul S.F., Zeeberg B., Buetow K.H., Schaefer C.P., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.C., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahy J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalilus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.,
RT 'Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.';
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RW [6]
RP NUCLEOTIDE SEQUENCE OF 167-248 (ISOFORM 2).
RX MEDLINE=92360843; PubMed=1379846;
RA Toyota M., Hinoda Y., Itoh P., Tsujieki M., Imai K., Yachi A.,
RA "Expression of two types of kit ligand mRNAs in human tumor cells.";
RT Int. J. Hematol. 55:301-304(1992).
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins.
CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (isoforms 1 and 2).
CC Also exists as a secreted soluble form (isoform 1 only) (By
CC similarity).
CC -!- ALTERNATIVE PRODUCTS:
CC Event-Alternative splicing; Named isoforms=2;
CC Name=1; Synonyms=SCF248;
CC IsoId=P21583-1; Sequences=Displayed;
CC Name=2; Synonyms=SCF220;
CC IsoId=P21583-2; Sequences=VSP 006022;
CC -!- DEVELOPMENTAL STAGE: Acts in the early stages of hematopoiesis.
CC -!- PTM: A soluble form is produced by proteolytic processing of
CC isoform 1 in the extracellular domain.
CC -!- SIMILARITY: Belongs to the SCF family.
CC -!- DATABASE: NAME=Atlas Genet. Cytogenet. Oncol. Haematol.;
CC WWW="http://www.infobiogen.fr/services/chronocancer/Genes/MGFI42.html".
CC
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC
CC EMBL; M59964; AAR85450.1; -; mRNA.
CC EMBL; AF119835; AAD2048.1; -; mRNA.
CC EMBL; AF400436; AAK92485.1; -; mRNA.
CC EMBL; AF400437; AAK92486.1; -; mRNA.
CC EMBL; BC069733; AAH69733.1; -; mRNA.
CC EMBL; BC069783; AAH69783.1; -; mRNA.
CC EMBL; BC069797; AAH69797.1; -; mRNA.
CC EMBL; BC074725; AAH74725.1; -; mRNA.
CC EMBL; S42571; AAB22846.2; -; mRNA.
CC PIR; A35974; A35974.
CC PIR; B61190; B61190.
CC PDB; 1EXZ; X-ray; A/B/C/D=26-166.
CC PDB; 1SCF; X-ray; A/B/C/D=1-273.
CC Ensembl; ENSG00000049130; Homo sapiens.
CC HGNC; HGNC:6343; KITLG.
CC MIM; 184745; -.
CC GO; GO:0005886; C:plasma membrane; NAS.
CC GO; GO:0005173; P:stem cell factor receptor binding; NAS.
CC GO; GO:0008283; P:cell proliferation; TAS.
CC GO; GO:000099; P:hemopoiesis; NAS.
CC GO; GO:0007165; P:signal transduction; TAS.
CC InterPro; IPR012351; Cytokine_4_hlx.
CC InterPro; IPR003452; SCF.
CC PANTHER; PTHR11574; SCF; 1.
CC Pfam; PF02404; SCF; 1.

KW 3D-structure; Alternative splicing; Cell adhesion; Glycoprotein;
KW Growth factor; Signal; Transmembrane.
FT SIGNAL 1 25 Kit ligand.
FT CHAIN 26 273 Extracellular (Potential).
FT TOPO_DOM 26 214 Potential.
FT TRANSMEM 215 237
FT TOPO_DOM 238 273 Cytoplasmic (Potential).
FT CARBOHYD 90 90 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 97 97 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 118 145 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 145 195 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 195 195 N-linked (GlcNAc...) (Potential).
FT DISULFID 29 114 By similarity.
FT DISULFID 68 163 By similarity.
FT VARSPPLIC 174 202 DSRVSVTFPMFLPPVVAASLRNDSSSSNR -> G (in
FT isoform 2).
FT /FTId=VSP_006022.
FT L -> S (in Ref. 3 and 4; AAK92486).
FT K -> R (in Ref. 3 and 4; AAK92486).
FT L -> F (in Ref. 3 and 4; AAK92486).
SQ SEQUENCE 273 AA; 30899 MW; 19FD362CB59C6607 CRC64;

Query Match 97.1%; Score 1030; DB 1; Length 273;
Best Local Similarity 99.5%; Pred. NO. 2.2e-71;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTQTWLTTCYLYQLLLFNPLVKTGECRRNVTNNVNDVKLVANLPKDYMITLKYYVPG 60
DB 1 MKKTQTWLTTCYLYQLLLFNPLVKTGECRRNVTNNVNDVKLVANLPKDYMITLKYYVPG 60

QY 61 MDVLPSPHCWISSEWVQVLSLTLDDKPSNISSEGLSNYSIIDKLVNIYVDDLVECVKENS 120
DB 61 MDVLPSPHCWISSEWVQVLSLTLDDKPSNISSEGLSNYSIIDKLVNIYVDDLVECVKENS 120

QY 121 KDLKSKFSKPPRLFTPEEFFRIFNRSIDAPKDFVASETSDCVSVSTLSPEKDSRVSVT 180
DB 121 KDLKSKFSKPPRLFTPEEFFRIFNRSIDAPKDFVASETSDCVSVSTLSPEKDSRVSVT 180

QY 181 KPFMLPPVVAASLRNDSSSSNSK 203
DB 181 KPFMLPPVVAASLRNDSSSSNRK 203

RESULT 2
SCF_FELCA STANDARD; PRT; 274 AA.
ID SCF_FELCA
AC P79169;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast
DE cell growth factor) (MGF).
GN Name=KITLG; Synonyms=SCF;
OS Felis silvestris catus (Cat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Felidae;
OC Felinae; Felis.
OX NCBI_TaxID=9685;
RN [1]
RP NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
RX MEDLINE=97069946; PubMed=8912926;
RA Dunham S.P., Onions D.E.;
RT "The cloning and sequencing of cDNAs encoding two isoforms of feline
RT stem cell factor.";
RL DNA Seq. 6:233-237(1996).
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins (by similarity).
CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (isoforms 1 and 2).
CC Also exists as a secreted soluble form (isoform 1 only) (By

```
CC similarity).
CC -!- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=1;
CC IsoId=P79169-1; Sequence=Displayed;
CC Name=2;
CC IsoId=P79169-2; Sequence=VSP_006021;
CC -!- PTM: A soluble form is produced by proteolytic processing of
CC isoform 1 in the extracellular domain (By similarity).
CC -!- SIMILARITY: Belongs to the SCF family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; D50833; BAA09445.1; -; mRNA.
CC SMR; P79169; 29-161.
CC InterPro; IPR012351; Cytokine_4_hlx.
CC PANTHER; PTHR11574; SCF; 1.
CC Pfam; PF02404; SCF; 1.
CC Alternative splicing; Cell adhesion; Glycoprotein; Growth factor;
CC Signal; Transmembrane.
CC SIGNAL 1 25
CC CHAIN 26 274
CC TOPO_DOM 26 215
CC TRANSMEM 216 238
CC TOPO_DOM 239 274
CC CARBOHYD 90 90
CC CARBOHYD 97 97
CC CARBOHYD 145 145
CC CARBOHYD 196 196
CC DISULFID 29 114
CC DISULFID 68 164
CC VERSPLIC 175 203
CC -----
CC SEQUENCE 274 AA; 30988 MW; C5B78DB4791237BE CRC64;
CC -----
Query Match 85.6%; Score 908.5; DB 1; Length 274;
Best Local Similarity 88.2%; Pred. No. 5.2e-62;
Matches 180; Conservative 13; Mismatches 10; Indels 1; Gaps 1;
QY 1 MKKTQTLTCTIYQLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPG 60
Db 1 MKKTQTLTCTIYQLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPG 60
QY 61 MDVLPSCWISWVQVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIVDDDLVECVKENS 120
Db 61 MDVLPSCWISWVQVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIVDDDLVECVKENS 120
QY 121 KDLKSKFSKPEPRLFTPTPEFFRIFNRSIDAFKDPF-VVASETSDCVSVSTLSPKDSRSV 179
Db 121 ENVKKSKSPPEPRLFTPTPEFFRIFNRSIDAFKDLWVASKTSECVCVSVSTLSPKDSRSV 180
QY 180 TKPFMLPPVAASSLRNDSSSSNSK 203
Db 181 TKPFMLPPVAASSLRNDSSSSNSK 204
RESULT 3
SCF_PIG
ID SCF_PIG STANDARD; PRT; 274 AA.
AC Q29030;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast
DE cell growth factor) (MGF).
OS Name=KITLG; Synonyms=MGF;
OS Sub scrofa (Pig).
```

```
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC Sub.
OX NCBI_TaxID=9823;
RN [1]_TaxID=9823;
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Uterus;
RX MEDLINE=94146218; PubMed=7508758;
RA Zhang Z., Anthony R.V.;
RT "Porcine stem cell factor/c-kit ligand: its molecular cloning and
RT localization within the uterus.";
RL Biol. Reprod. 50:95-102(1994).
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins (By similarity).
CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a
CC secreted soluble form (By similarity).
CC -!- PTM: A soluble form is produced by proteolytic processing of the
CC extracellular domain (By similarity).
CC -!- SIMILARITY: Belongs to the SCF family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; L07786; AAA53670.1; -; mRNA.
CC PIR; I46575; I46575.
CC SMR; Q29030; 29-161.
CC InterPro; IPR012351; Cytokine_4_hlx.
CC InterPro; IPR003452; SCF.
CC PANTHER; PTHR11574; SCF; 1.
CC Pfam; PF02404; SCF; 1.
CC Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
CC SIGNAL 1 25
CC CHAIN 26 274
CC TOPO_DOM 26 215
CC TRANSMEM 216 238
CC TOPO_DOM 239 274
CC CARBOHYD 90 90
CC CARBOHYD 97 97
CC CARBOHYD 145 145
CC CARBOHYD 196 196
CC DISULFID 29 114
CC DISULFID 68 164
CC SEQUENCE 274 AA; 31119 MW; PF3C87114D7BA6A6 CRC64;
CC -----
Query Match 84.8%; Score 899.5; DB 1; Length 274;
Best Local Similarity 86.3%; Pred. No. 2.6e-61;
Matches 176; Conservative 17; Mismatches 10; Indels 1; Gaps 1;
QY 1 MKKTQTLTCTIYQLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPG 60
Db 1 MKKTQTLTCTIYQLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPG 60
QY 61 MDVLPSCWISWVQVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIVDDDLVECVKENS 120
Db 61 MDVLPSCWISWVQVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIVDDDLVECVKENS 120
QY 121 KDLKSKFSKPEPRLFTPTPEFFRIFNRSIDAFKDPF-VVASETSDCVSVSTLSPKDSRSV 179
Db 121 ENVKKSKSPPEPRLFTPTPEFFRIFNRSIDAFKDLWVASKTSECVCVSVSTLSPKDSRSV 180
QY 180 TKPFMLPPVAASSLRNDSSSSNSK 203
Db 181 TKPFMLPPVAASSLRNDSSSSNSK 204
RESULT 4
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SCF_HORSE
 ID SCF_HORSE STANDARD; PRT: 274 AA.
 AC Q95MD2; O62765; Q95MG7; Q95MG8; Q9N1Y5;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast cell growth factor) (MGF).
 DE Name=KITLG; Synonyms=MGF, SCF;
 GN Equus caballus (Horse).
 OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Perissodactyla; Equidae; Equus.
 OX NCBI_TaxID=9796;
 RN [1]
 RP NUCLEOTIDE SEQUENCE OF 4-264.
 RA Terry R.R., Mickelson J.R., Schmutz S., Cothran E.G., Bailey E.; "Equus caballus mast cell growth factor (MGF)."; Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.
 RT [2]
 RP NUCLEOTIDE SEQUENCE OF 12-267.
 RC Tissue=Skin;
 RA Rieder S., Checa-Cortes M.L., Joerg H., Stranzinger G.; "An equine sequence homologous to stem cell factor (KIT-ligand)."; Submitted (MAR-1998) to the EMBL/GenBank/DBJ databases.
 RL [3]
 RP NUCLEOTIDE SEQUENCE OF 107-202 AND 227-274.
 RA Terry R.R., Bailey E.F., Cothran E.G.; "Evaluation of MGF as the candidate gene for Appaloosa spotting."; Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
 RN [4]
 RP NUCLEOTIDE SEQUENCE OF 147-197.
 RA Caetano A.R., Shive Y.-L., Lyons L.A., Laughlin T.F., O'Brien S.J., Murray J.D., Bowling A.T.; "A primary Human-Horse comparative gene map."; Submitted (JAN-2000) to the EMBL/GenBank/DBJ databases.
 RL [5]
 CC FUNCTION: Stimulates the proliferation of mast cells. Able to augment the proliferation of both myeloid and lymphoid hematopoietic progenitors in bone marrow culture. Mediates also cell-cell adhesion. Acts synergistically with other cytokines, probably interleukins (By similarity).
 CC SUBUNIT: Homodimer, non-covalently linked (Probable).
 CC CELLULAR LOCATION: Type I membrane protein. Also exists as a secreted soluble form (By similarity).
 CC PTM: A soluble form is produced by proteolytic processing of the extracellular domain (By similarity).
 CC SIMILARITY: Belongs to the SCF family.
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not removed.
 DR EMBL; AF401625; AAK94474.1; -; mRNA.
 DR EMBL; AF053498; AAC97076.1; -; mRNA.
 DR EMBL; AF367704; AAK63249.1; -; Genomic DNA.
 DR EMBL; AF367706; AAK63250.1; -; Genomic DNA.
 DR EMBL; AF130770; AAF36716.1; -; Genomic DNA.
 DR SMR; Q95MD2; 29-161.
 DR InterPro; IPR012351; Cytochrome_4_hlx.
 DR InterPro; IPR003452; SCF.
 DR PANTHER; PTHR11574; SCF; 1.
 DR Pfam; PF02404; SCF; 1.
 KW Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
 FT SIGNAL 1 25 Potential.
 FT CHAIN 26 274 Kit ligand.
 FT TOPO_DOM 26 215 Extracellular (Potential).
 FT TRANSMEM 216 238 Potential.
 FT TOPO_DOM 239 274 Cytoplasmic (Potential).
 FT CARBOHYD 90 90 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 97 97 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 145 145 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 196 196 N-linked (GlcNAc...) (Potential).

FT CARBOHYD 207 207 N-linked (GlcNAc...) (Potential).
 FT DISULFID 29 114 By similarity.
 FT DISULFID 68 164 By similarity.
 FT CONFLICT 15 15 Q -> P (in Ref. 2).
 FT CONFLICT 241 241 Missing (in Ref. 3).
 SQ SEQUENCE 274 AA; 31217 MW; 96C1D4C9059132F2 CRC64;
 Query Match 84.7%; Score 898.5; DB 1; Length 274;
 Best Local Similarity 86.8%; Pred. No. 3.1e-61; Indels 1; Gaps 1;
 Matches 177; Conservative 15; Mismatches 11;
 QY 1 MKKTQTWLTCTIYLQLLFLNPLVKTGICRRNVNNDVTKLVANLPKDYMITLKYPG 60
 DB 1 MKKTQTWLTCTIYLQLLFLNPLVKTGICRRNVNNDVTKLVANLPKDYMITLKYPG 60
 QY 61 MDVLPSCWISWMMVQVLSLTDLLKFSNISEGLSNYSIIDKLVINVDLVECKENSS 120
 DB 61 MDVLPSCWISWMMVQVLSLTDLLKFSNISEGLSNYSIIDKLVINVDLVECKENSS 120
 QY 121 KDLKSKPKSPPELFTPEEPFRIFNRSIDAFKDF-VVASETSDCVSSTLSPEKDSRVSV 179
 DB 121 KDLKSKPKSPPELFTPEEPFRIFNRSIDAFKDF-VVASETSDCVSSTLSPEKDSRVSV 179
 QY 121 ENVKXSYKQSRSLFTPEEPFRIFNRSIDAFKDFVVMVSKTSECWVSTLSPEKDSRVSV 180
 DB 121 ENVKXSYKQSRSLFTPEEPFRIFNRSIDAFKDFVVMVSKTSECWVSTLSPEKDSRVSV 180
 QY 180 TKPFMLPVAASSLRNDSSSSNSK 203
 DB 180 TKPFMLPVAASSLRNDSSSSNSK 203
 QY 181 TKPFMLPVAASSLRNDSSSSNRK 204
 DB 181 TKPFMLPVAASSLRNDSSSSNRK 204
 RESULT 5
 Q86524_9PRIM PRELIMINARY; PRT: 245 AA.
 ID Q86524_9PRIM PRELIMINARY; PRT: 245 AA.
 AC Q86524_9PRIM PRELIMINARY; PRT: 245 AA.
 DT 01-JUN-2003 (TRENBLrel. 24, Created)
 DT 01-JUN-2003 (TRENBLrel. 24, Last sequence update)
 DT 01-MAR-2004 (TRENBLrel. 26, Last annotation update)
 DE Stem cell factor.
 OS Papio cynocephalus x Papio anubis.
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Archontoglires; Primates; Catarrhini; Cercopithecoidea; Cercopithecinae; Papio.
 OX NCBI_TaxID=208510;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Kalina T., Storek J.; Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.
 RL EMBL; AY226584; AAO72537.1; -; mRNA.
 DR HSP; P21583; 1EXZ.
 DR SMR; Q86524; 29-161.
 DR GO; GO:0016020; C:membrane; IEA.
 DR GO; GO:0005173; F:stem cell factor receptor binding; IEA.
 DR GO; GO:0007155; P:cell adhesion; IEA.
 DR InterPro; IPR003452; SCF.
 DR Pfam; PF02404; SCF; 1.
 SQ SEQUENCE 245 AA; 27887 MW; 937B3CAF28D694FA CRC64;
 Query Match 83.9%; Score 890; DB 2; Length 245;
 Best Local Similarity 100.0%; Pred. No. 1.2e-60; Indels 0; Gaps 0;
 Matches 173; Conservative 0; Mismatches 0;
 QY 1 MKKTQTWLTCTIYLQLLFLNPLVKTGICRRNVNNDVTKLVANLPKDYMITLKYPG 60
 DB 1 MKKTQTWLTCTIYLQLLFLNPLVKTGICRRNVNNDVTKLVANLPKDYMITLKYPG 60
 QY 61 MDVLPSCWISWMMVQVLSLTDLLKFSNISEGLSNYSIIDKLVINVDLVECKENSS 120
 DB 61 MDVLPSCWISWMMVQVLSLTDLLKFSNISEGLSNYSIIDKLVINVDLVECKENSS 120
 QY 121 KDLKSKPKSPPELFTPEEPFRIFNRSIDAFKDFVVASETSDCVSSTLSPEK 173
 DB 121 KDLKSKPKSPPELFTPEEPFRIFNRSIDAFKDFVVASETSDCVSSTLSPEK 173
 RESULT 6

SCF_SHEEP STANDARD; PRT; 267 AA.

AC P79368; Q28591;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast cell growth factor) (MGP) (Fragment).
 DE Name=KITLG; Synonyms=SCF;
 OS Ovis aries (Sheep).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae; Caprinae; Ovis.
 NCBI_TaxID=9940;
 RN NUCLEOTIDE SEQUENCE OF 8-267.
 RC TISSUE=Ovarian follicle;
 RX MEDLINE=96413880; PubMed=8662240; DOI=10.1007/s003359900142; Tisdall D.J., Quirke L.D., Galloway S.M.;
 RA "Ovine stem cell factor gene is located within a syntenic group on chromosome 3 conserved across mammalian species."
 RL Mamm. Genome 7:472-473(1996).
 [2]
 RP NUCLEOTIDE SEQUENCE OF 1-202.
 RX MEDLINE=99263397; PubMed=10328863; DOI=10.1006/cyto.1998.0430; McInnes C.J., Deane D., Thomson J., Broad A., Haig D.M.;
 RA "The cloning and expression of the cDNA for ovine stem cell factor (kit-ligand) and characterization of its in vitro haematopoietic activity."
 RT Cytokine 11:249-256(1999).
 RL
 CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to augment the proliferation of both myeloid and lymphoid hematopoietic progenitors in bone marrow culture. Mediates also cell-cell adhesion. Acts synergistically with other cytokines, probably interleukins (By similarity).
 CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
 CC -!- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a secreted soluble form (By similarity).
 CC -!- PTM: A soluble form is produced by proteolytic processing of the extracellular domain (By similarity).
 CC -!- SIMILARITY: Belongs to the SCF family.

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 DR EMBL; U89874; AAB49491.1; -; mRNA.
 DR EMBL; Z50743; CAA30620.1; -; mRNA.
 DR PIR; S58313; S58313.
 DR SMR; P79368; 29-161.
 DR InterPro; IPR012351; Cytokine_4_hlx.
 DR InterPro; IPR003452; SCF.
 DR PANTHER; PTHR11574; SCF; 1.
 DR Pfam; PF02404; SCF; 1.
 KW Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
 FT SIGNAL 1 25 Potential.
 FT CHAIN 26 >267 Kit ligand.
 FT TOPO_DOM 26 215 Extracellular (Potential).
 FT TRANSMEM 216 238 Potential.
 FT TOPO_DOM 239 >267 Cytoplasmic (Potential).
 FT CARBOHYD 90 90 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 97 97 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 145 145 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 196 196 By similarity.
 FT DISULFID 29 114 By similarity.
 FT DISULFID 68 164 By similarity.
 FT NON_TER 267 267
 SQ SEQUENCE 267 AA; 30149 MW; 9D9D959E4B9EC841 CRC64;

Query Match 83.8%; Score 889.5; DB 1; Length 267;
 Best Local Similarity 85.8%; Pred. No. 1.5e-60;

Matches 175; Conservative 15; Mismatches 13; Indels 1; Gaps 1;

QY 1 MKKTQTWLTCTIYQLQLLNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKVPG 60
 DB 1 MKKTQTWLTCTIYQLQLLNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKVPG 60
 QY 61 MDVLPCHWCISEMNVQLSDSLTDLDFKFSNISGLSNYSIIDKLWNIIVDDLVECVKENS 120
 DB 61 MDVLPCHWCISEMNVQLSVSLTDLDFKFSNISGLSNYSIIDKLWNIIVDDLVECVKENS 120
 QY 121 KDLKSKFSPKPEPLFTPEFRIFRNSIDAFKDF-VVASETSQCVVSSSTLSPEKDSVSV 179
 DB 121 ENVKSSKSPKPEPQFTPEKFGIFNKSIDAFKDLLEIVASTMSECVISSTSSPEKDSVSV 180
 QY 180 TKPFMLPPVAASLRNDSSSSNSK 203
 DB 181 TKPFMLPPVAASLRNDSSSSNRK 204

RESULT 7

ID SCF_BOVIN STANDARD; PRT; 274 AA.

AC Q28132; Q9TU74;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast cell growth factor) (MGP).
 DE Name=KITLG; Synonyms=SCF;
 OS Bos taurus (Bovine).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae; Bovinae; Bos.
 NCBI_TaxID=9913;
 RN NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
 RC TISSUE=Spleen;
 RX MEDLINE=94339176; PubMed=7520283; DOI=10.1016/0167-4889(94)90084-1; Zhou J., Hikono H., Ohtaki M., Kubota T., Sakurai M.;
 RT "Cloning and characterization of cDNAs encoding two normal isoforms of bovine stem cell factor."
 RT Biochim. Biophys. Acta 1223:148-150(1994).
 RL
 RN NUCLEOTIDE SEQUENCE (ISOFORM 1).
 RC TISSUE=Petal brain;
 RA Kudo T.;
 RT "Bovine counterpart of stem cell factor."
 RT Submitted (OCT-1999) to the EMBL/GenBank/DBJ databases.
 RL [3]
 RP NUCLEOTIDE SEQUENCE OF 204-239, AND VARIANT ASP-218.
 RC STRAIN=Belgian Blue;
 RX MEDLINE=99315331; PubMed=10384045; DOI=10.1007/s003359901076; Seitz J.J., Schmutz S.M., Thue T.D., Buchanan F.C.;
 RT "A missense mutation in the bovine MGF gene is associated with the roan phenotype in Belgian Blue and Shorthorn cattle."
 RL Mamm. Genome 10:710-712(1999).
 CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to augment the proliferation of both myeloid and lymphoid hematopoietic progenitors in bone marrow culture. Mediates also cell-cell adhesion. Acts synergistically with other cytokines, probably interleukins (By similarity).
 CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
 CC -!- SUBCELLULAR LOCATION: Type I membrane protein (isoforms 1 and 2). Also exists as a secreted soluble form (isoform 1 only) (By similarity).
 CC -!- ALTERNATIVE PRODUCTS:
 CC Event=Alternative splicing; Named isoforms=2;
 CC Name=1;
 CC IsoId=Q28132-1; Sequence=Displayed;
 CC Name=2;
 CC IsoId=Q28132-2; Sequence=VSP_006020;
 CC -!- PTM: A soluble form is produced by proteolytic processing of isoform 1 in the extracellular domain (By similarity).
 CC


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CC -!- POLYMORPHISM: The roan locus is responsible for the coat
CC coloration of Belgian Blue and Shorthorn cattle. The solid-colored
CC and white animals are homozygotes, and the roan animals, with
CC intermingled colored and white hairs, are heterozygous. The roan
CC phenotype is due to the Asp-218 mutation.
CC
CC -!- SIMILARITY: Belongs to the SCF family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; D28934; BAA06061.1; -; mRNA.
CC EMBL; AB033716; BAA94808.1; -; mRNA.
CC EMBL; AF120154; AAD55355.1; -; Genomic_DNA.
CC PIR; S47571; S47571.
CC SMR; Q28132; 29-161.
CC InterPro; IPR012351; Cytokine_4_hlx.
CC PANTHER; PTHR11574; SCF; 1.
CC Pfam; PF02404; SCF; 1.
CC Alternative splicing; Cell adhesion; Glycoprotein; Growth factor;
KW Polymorphism; Signal; Transmembrane.
FT SIGNAL 1 25 Potential.
FT CHAIN 26 274 Kit ligand.
FT TOPO_DOM 26 215 Extracellular (Potential).
FT TRANSMEM 216 238 Potential.
FT TOPO_DOM 239 274 Cytoplasmic (Potential).
FT CARBOHYD 90 90 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 145 145 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 196 196 N-linked (GlcNAc...) (Potential).
FT DISULFID 29 114 By similarity.
FT DISULFID 68 164 By similarity.
FT VARSPIC 175 203 DSRVSVTKPFMLPPVAAASLRNDSSSSNR -> G (in isoform 2).
FT VARIANT 218 218 A -> D (in roan allele).
FT SEQUENCE 274 AA; 31015 MW; D6C1DBB77B0CB12B CRC64;

Query Match 83.6%; Score 886.5; DB 1; Length 274;
Best Local Similarity 85.3%; Pred. No. 2.6e-60;
Matches 174; Conservative 16; Mismatches 13; Indels 1; Gaps 1;

QY 1 MKKTQWILTCIYLQALLFPNPLVTEGICRNRTNNKDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQWILTCIYLQALLFPNPLVHTQIGICNSRVTDDKDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWCISEMWVQLSDTLDDKFSNI SEGLSNYSIIDKLVNIVDDLVECVKENS 120
Db 61 MDVLPSCWCISEMWVQLSVSLTDLDDKFSNI SEGLSNYSIIDKLVNIVDDLVECMEEHS 120
QY 121 KDLKKSFKSPERLFTPEPFRIENRSIDAFKDF -VVASETSDCVVSSSTLSPKDSRVSV 179
Db 121 ENVKSSKSPERQFTPEKFGFNKSIDAFKDLKLVASTMECVISSTSSPKDSRVSV 180
QY 180 TKPFMLPPVAAASLRNDSSSSNSK 203
Db 181 TKPFMLPPVAAASLRNDSSSSNRK 204

RESULT 8
SCF_CAPHI ID - SCF_CAPHI STANDARD; PRT; 274 AA.
AC Q95M19;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast
DE cell growth factor) (NGF).
DE Name=KITLG; Synonyms=SCF;
OS Capra hircus (Goat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

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OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Caprinae; Capra.
OX NCBI_TaxID=9925;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Shiba; TISSUE=Brain;
RA Yanagisawa N., Tanaka S., Yamanouchi K., Tojo H., Tachi C.;
RT "Identification of splicing isoforms of caprine stem cell factor
RT (GSCF) transcripts and expression patterns of the two major isoforms,
RT GSCF825 and GSCF41, in the brain and the skin of adult and fetal
RT Shiba goats, Capra hircus.";
RL Submitted (MAR-1997) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins (By similarity).
CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a
CC secreted soluble form (By similarity).
CC -!- PTM: A soluble form is produced by proteolytic processing of the
CC extracellular domain (By similarity).
CC -!- SIMILARITY: Belongs to the SCF family.
CC -----
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; AB002152; BAB71753.1; -; mRNA.
CC SMR; Q95M19; 29-161.
CC InterPro; IPR012351; Cytokine_4_hlx.
CC PANTHER; PTHR11574; SCF; 1.
CC Pfam; PF02404; SCF; 1.
CC Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
FT SIGNAL 1 25 Potential.
FT CHAIN 26 274 Kit ligand.
FT TOPO_DOM 26 215 Extracellular (Potential).
FT TRANSMEM 216 238 Potential.
FT TOPO_DOM 239 274 Cytoplasmic (Potential).
FT CARBOHYD 90 90 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 97 97 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 145 145 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 196 196 N-linked (GlcNAc...) (Potential).
FT DISULFID 29 114 By similarity.
FT DISULFID 68 164 By similarity.
FT SEQUENCE 274 AA; 31053 MW; BBFE669A509EF65D CRC64;

Query Match 83.5%; Score 885.5; DB 1; Length 274;
Best Local Similarity 85.3%; Pred. No. 3.1e-60;
Matches 174; Conservative 16; Mismatches 13; Indels 1; Gaps 1;

QY 1 MKKTQWILTCIYLQALLFPNPLVTEGICRNRTNNKDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQWILTCIYLQALLFPNPLVHTQIGICNSRVTDDKDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWCISEMWVQLSDTLDDKFSNI SEGLSNYSIIDKLVNIVDDLVECVKENS 120
Db 61 MDVLPSCWCISEMWVQLSVSLTDLDDKFSNI SEGLSNYSIIDKLVNIVDDLVECMEEHSF 120
QY 121 KDLKKSFKSPERLFTPEPFRIENRSIDAFKDF -VVASETSDCVVSSSTLSPKDSRVSV 179
Db 121 ENVKSSKSPERQFTPEKFGFNKSIDAFKDLKLVASTMECVISSTSSPKDSRVSV 180
QY 180 TKPFMLPPVAAASLRNDSSSSNSK 203
Db 181 TKPFMLPPVAAASLRNDSSSSNRK 204

RESULT 9
SCF_CANFA

```


CC probably interleukins.
 CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
 CC -!- SUBCELLULAR LOCATION: Type I membrane protein (isoforms 1 and 2).
 CC Also exists as a secreted soluble form (isoform 1 only) (By
 CC similarity).
 CC -!- ALTERNATIVE PRODUCTS:
 CC Event-Alternative splicing; Named isoforms=2;
 CC Name=1; Synonyms=KL-1;
 CC IsoId=P21581-1; Sequence=Displayed;
 CC Name=2; Synonyms=KL-2;
 CC IsoId=P21581-2; Sequence=VSP 006025;
 CC -!- DEVELOPMENTAL STAGE: Acts in the early stages of hematopoiesis.
 CC -!- PTM: A soluble form is produced by proteolytic processing of
 CC isoform 1 in the extracellular domain.
 CC -!- SIMILARITY: Belongs to the SCF family.
 CC
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC
 CC EMBL; AF071204; AAD02827.1; -; mRNA.
 CC EMBL; AF071205; AAD02828.1; -; mRNA.
 CC EMBL; M59966; AAR42117.1; -; mRNA.
 CC F01; B35974; B35974.
 CC SMR; P21581; 29-159.
 CC DR Ensembl; ENSRNOG000005386; Rattus norvegicus.
 CC DR InterPro; IPR012351; Cytokine_4_hlx.
 CC DR InterPro; IPR003452; SCF.
 CC DR PANTHER; PTHR11574; SCF; 1.
 CC Pfam; PF02404; SCF; 1.
 CC Alternative splicing; Cell adhesion; Direct protein sequencing;
 CC Glycoprotein; Growth factor; Pyrrolidone carboxylic acid; Signal;
 CC Transmembrane.
 CC SIGNAL 1 25
 CC CHAIN 26 273
 CC TOPO_DOM 26 214
 CC TRANSMEM 215 237
 CC TOPO_DOM 238 273
 CC MOD_RES 26 26
 CC CARBOHYD 90 90
 CC CARBOHYD 145 145
 CC CARBOHYD 167 167
 CC CARBOHYD 168 168
 CC CARBOHYD 180 180
 CC CARBOHYD 195 195
 CC CARBOHYD 29 114
 CC DISULFID 68 163
 CC VARSPLIC 174 202
 CC
 CC DSRVSVTKPFMLPPVAAASLRNDSSSSNR -> G (in
 CC isoform 2).
 CC /FTID=VSP 006025.
 CC S -> P (in Ref. 1; AAD02828).
 CC
 CC CONFLICT 207 207
 CC SEQUENCE 273 AA; 30712 MW; C0F56527DC93PD21 CRC64;
 CC
 CC Query Match 81.1%; Score 861; DB 1; Length 273;
 CC Best Local Similarity 82.3%; Pred. No. 2.4e-58;
 CC Matches 167; Conservative 15; Mismatches 21; Indels 0; Gaps 0;
 CC
 CC QY 1 MKKTTQWLTCTYLQQLLPNPLVKTGEGICRNVNVTNNKDVTKLVANLPKDYMITLKYVPG 60
 CC DB 1 MKKTTQWLTCTYLQQLLPNPLVKTGEGICRNVNVTNNKDVTKLVANLPNPMITLNYVAG 60
 CC QY 61 MDVLPSSHCHWISWVQVLSLTDLDKFSNI SEGLSNYSIIDKLVNVDLVECVKENS 120
 CC DB 61 MDVLPSSHCHWLRDMVTHLSVSLTLLDKFSNI SEGLSNYSIIDKLVNVDLVECVKENS 120
 CC QY 121 KDLKSKFKGPEPRLFTPEPEFFIFNRSIDAFKDFVVASSETSCVSTLSPKDSRVSVT 180
 CC DB 121 KNVKESLKPETRNFTPEPEFFIFNRSIDAFKDFVVASSETSCVSTLSPKDSRVSVT 180
 CC QY 181 KPFLPPVAAASLRNDSSSSNSK 203

Db 181 KPFLPPVAAASLRNDSSSSNRK 203
 RESULT 11
 ID SCF MUSVI STANDARD; PRT; 274 AA.
 AC Q95N18; Q95MN5;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Kit ligand precursor (C-kit ligand) (stem cell factor) (SCF) (Mast
 DE cell growth factor) (MGF).
 GN Name=KITLG; Synonyms=SCF;
 OS Mus musculus (American mink).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Mustelidae;
 OC Mustelinae; Mustela.
 OX NCBI TaxID=9667;
 RN [1]
 RP NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
 RA Bennett R.D., Murphy B.D.;
 RL Submitted (NOV-2000) to the EMBL/GenBank/DBJ databases.
 CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
 CC augment the proliferation of both myeloid and lymphoid
 CC hematopoietic progenitors in bone marrow culture. Mediates also
 CC cell-cell adhesion. Acts synergistically with other cytokines,
 CC probably interleukins (By similarity).
 CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
 CC -!- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a
 CC secreted soluble form (By similarity).
 CC -!- ALTERNATIVE PRODUCTS:
 CC Event-Alternative splicing; Named isoforms=2;
 CC Name=1;
 CC IsoId=Q95N18-1; Sequence=Displayed;
 CC Name=2;
 CC IsoId=Q95N18-2; Sequence=VSP 006024;
 CC -!- PTM: A soluble form is produced by proteolytic processing of
 CC isoform 1 in the extracellular domain (By similarity).
 CC -!- SIMILARITY: Belongs to the SCF family.
 CC
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC
 CC EMBL; AY013712; AAG37434.1; -; mRNA.
 CC EMBL; AF323757; AAK73366.1; -; mRNA.
 CC SMR; Q95N18; 29-161.
 CC InterPro; IPR012351; Cytokine_4_hlx.
 CC InterPro; IPR003452; SCF.
 CC PANTHER; PTHR11574; SCF; 1.
 CC Pfam; PF02404; SCF; 1.
 CC Alternative splicing; Cell adhesion; Glycoprotein; Growth factor;
 CC Signal; Transmembrane.
 CC SIGNAL 1 25
 CC CHAIN 26 274
 CC TOPO_DOM 26 215
 CC TRANSMEM 216 238
 CC TOPO_DOM 239 274
 CC CARBOHYD 90 90
 CC CARBOHYD 97 97
 CC CARBOHYD 145 145
 CC CARBOHYD 196 196
 CC DISULFID 29 114
 CC DISULFID 68 164
 CC VARSPLIC 175 203
 CC
 CC By similarity.
 CC Kit ligand.
 CC Extracellular (Potential).
 CC Potential.
 CC Cytoplasmic (Potential).
 CC N-linked (GlcNAc...) (Potential).
 CC N-linked (GlcNAc...) (Potential).
 CC N-linked (GlcNAc...) (Potential).
 CC N-linked (GlcNAc...) (Potential).
 CC By similarity.
 CC By similarity.
 CC DSRVSVTKPFMLPPVAAASLRNDSSSSNR -> G (in
 CC isoform 2).
 CC /FTID=VSP 006024.
 CC S -> P (in Ref. 1; AAK73366).
 CC S -> N (in Ref. 1; AAK73366).
 CC EREFQEV -> RESFKRCNCGFYHTVLSVGG (in Ref.
 CC 1; AAK73366).
 CC
 CC CONFLICT 65 65
 CC CONFLICT 171 171
 CC CONFLICT 268 274
 CC
 CC FT

Db 181 KPFWLPPVAASSLRNDSSSSNRK 203

RESULT 13

Q78ED8_MOUSE

ID Q78ED8_MOUSE PRELIMINARY; PRT; 208 AA.

AC Q78ED8;

DT 05-JUL-2004 (TrEMBLrel. 27, Created)

DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)

DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)

DE Kit ligand.

GN Name=Kitl;

OS Mus musculus (Mouse).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;

OC Muridae; Murinae; Mus.

OX NCBI_TaxID=10090;

RN [1]

NUCLEOTIDE SEQUENCE.

RP MEDLINE=91160046; PubMed=1705866; DOI=10.1016/0092-8674(91)90326-T;

RA Flanagan J.G., Chan D.C., Leder P.;

RT "Transmembrane form of the kit ligand growth factor is determined by

RT alternative splicing and is missing in the Sld mutant.";

RL Cell 64:1025-1035(1991).

KL EMBL; M64262; AAA39378.1; -; mRNA.

DR SMR; Q78ED8; 29-159.

DR MGI; MGI:96974; Kitl.

DR GO; GO:0005615; C:extracellular space; IDA.

DR GO; GO:0016021; C:integral to membrane; IDA.

DR GO; GO:0005886; C:plasma membrane; IDA.

DR GO; GO:0005515; F:protein binding; IPI.

DR GO; GO:0005173; F:stem cell factor receptor binding; IDA.

DR GO; GO:0007281; P:germ cell development; TAS.

DR GO; GO:0050731; P:positive regulation of peptidyl-tyrosine ph. .; IDA.

DR InterPro; IPR003452; SCF.

DR Pfam; PF02404; SCF; 1.

SQ SEQUENCE 208 AA; 23222 MW; C74DD63956EB817 CRC64;

Query Match 80.6%; Score 855; DB 2; Length 208;

Best Local Similarity 82.3%; Pred. No. 5e-58;

Matches 167; Conservative 16; Mismatches 20; Indels 0; Gaps 0

QY 1 MKKTQTWILFCIYLQLLFNPLVKTEGICRRNVTVNNYKDVTKGLVANLPKDYMITLKYYPG 60

DB 1 MKKTQTWIIICIVLQLLFNPLVKTEICGNPVTNDVKDITKLVANLPNDYMITLNYVAG 60

QY 61 MDVLPCHWCISEMNVQLSDSLTLLDKFSNISSEGLSNYSIIDKLVIYVDLVECVKENS 120

DB 61 MDVLPCHCWLRDVIQLSLTLLDKFSNISSEGLSNYSIIDKLGIKIVDDILVLCMBENAP 120

QY 121 KDLKCKFKSPPELFTPEBEFFRINRSIDAFKDPFVASETSDCVVSSSTLSPEKDSRVST 180

DB 121 KNVKEFPKRETSFTPEEPFSPFNRSIDAFKDPFWASDSDCVLSTLGFPEKDSRVST 180

QY 181 KPFWLPPVAASSLRNDSSSSNSK 203

DB 181 KPFWLPPVAASSLRNDSSSSNRK 203

RESULT 14

SCF_MOUSE

ID SCF_MOUSE STANDARD; PRT; 273 AA.

AC P20826; P97332; Q62524; Q64222; Q921N5;

DT 01-FEB-1991 (Rel. 17, Created)

DT 10-MAY-1991 (Rel. 18, Last sequence update)

DT 10-MAY-2005 (Rel. 47, Last annotation update)

DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast

DE cell growth factor) (MGF) (Hematopoietic growth factor KL) (Steel

DE factor).

GN Name=Kitlg; Synonyms=Kitl; Mgf, Sl, Slf;

OS Mus musculus (Mouse).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;

OC Muroidea; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RN NUCLEOTIDE SEQUENCE (ISOFORM 1).
RC STRAIN=WCB6F1;
RX MEDLINE=91004223; PubMed=1698558; DOI=10.1016/0092-8674(90)90304-W;
RA Anderson D.M., Lyman S.D., Baird A., Wignall J.M., Eisenman J.,
RA Rauch C., March C.J., Boswell H.S., Gimpel S.D., Cosman D.,
RA Williams D.E.;
RT "Molecular cloning of mast cell growth factor, a hematopoietin that is
RT active in both membrane bound and soluble forms.";
RL Cell 63:235-243(1990).
RN [2]
RN NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
RX MEDLINE=92330001; PubMed=1378327;
RA Huang E.J., Nocka K.H., Buck J., Besmer P.;
RT "Differential expression and processing of two cell associated forms
RT of the kit-ligand: KL-1 and KL-2.";
RL Mol. Biol. Cell 3:349-362(1992).
RN [3]
RN NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
RC STRAIN=WCB6F1;
RX MEDLINE=91160046; PubMed=1705866; DOI=10.1016/0092-8674(91)90326-T;
RA Flanagan J.G., Chan D.C., Leder P.;
RT "Transmembrane form of the kit ligand growth factor is determined by
RT alternative splicing and is missing in the Sld mutant.";
RL Cell 64:1025-1035(1991).
RN [4]
RN NUCLEOTIDE SEQUENCE (ISOFORM 1).
RX MEDLINE=93012940; PubMed=1383087;
RA Brannan C.I., Bedell M.A., Resnick J.L., Eppig J.J., Handel M.A.,
RA Williams D.E., Lyman S.D., Donovan P.J., Jenkins N.A., Copeland N.G.;
RT "Developmental abnormalities in Steel17H mice result from a splicing
RT defect in the steel factor cytoplasmic tail.";
RL Genes Dev. 6:1832-1842(1992).
RN [5]
RN NUCLEOTIDE SEQUENCE (ISOFORM 1).
RC STRAIN=C57BL/6J;
RX MEDLINE=97002551; PubMed=8849898;
RA Bedell M.A., Copeland N.G., Jenkins N.A.;
RT "Multiple pathways for Steel regulation suggested by genomic and
RT sequence analysis of the murine Steel gene.";
RL Genetics 142:927-934(1996).
RN [6]
RN NUCLEOTIDE SEQUENCE (ISOFORM 1), AND VARIANTS PRO-193 AND SER-207.
RC STRAIN=C3H/El; TISSUE=Brain;
RX MEDLINE=97032534; PubMed=8875893; DOI=10.1007/s003359900247;
RA Graw J., Loester J., Neuhauser-Klaus A., Pretsch W., Schmitt-John T.;
RT "Molecular analysis of two new Steel mutations in mice shows a
RT transversion or an insertion.";
RL Mamm. Genome 7:843-846(1996).
RN [7]
RN NUCLEOTIDE SEQUENCE (ISOFORM 1), AND VARIANTS SER-122; PRO-193 AND
RN SER-207.
RC STRAIN=102/El x C3H/El;
RX MEDLINE=98025115; PubMed=9360640; DOI=10.1016/S1383-5726(97)00005-8;
RA Graw J., Neuhauser-Klaus A., Pretsch W.;
RT "Detection of a point mutation (A to G) in exon 5 of the murine Mgf
RT gene defines a novel allele at the Steel locus with a weak
RT phenotype.";
RL Mutat. Res. 382:75-78(1997).
RN [8]
RN NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1).
RC STRAIN=C57BL/6J; TISSUE=Cerebellum;
RX MEDLINE=22354683; PubMed=12466851; DOI=10.1038/nature01266;
RA Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kondo S.,
RA Nikaido I., Osato N., Saito R., Suzuki H., Yamanaka I., Kiyosawa H.,
RA Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schonbach C., Gotojori T.,
RA Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,
RA Schriml L.M., Kanapin A., Matsuda H., Batalov S., Beisel K.W.,
RA Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S.,
RA Dalla E., Dragani T.A., Fletcher C.F., Forrest A., Frazer K.S.,
RA Gaasterland T., Gariboldi M., Gissi C., Godzik A., Gough J.,
RA Grimond S., Gustincich S., Hirokawa N., Jackson I.J., Jarvis E.D.,
RA Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,
RA Maglott D.R., Maltais L., Marchionni L., McKenzie L., Miki H., Pesole G.,
RA Nagashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
RA Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA Ravasi T., Reed J.C., Reid D.J., Ring B.Z., Ringwald M.,
RA Sadelin A., Schneider C., Semple C.A., Setou M., Shimada K.,
RA Sultana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M.,
RA Verardo R., Wagner L., Wahlestedt C., Wang Y., Watanabe Y., Wells C.,
RA Wilmink L.G., Wushaw-Boris A., Yanagisawa M., Yang I., Yang L.,
RA Yuan Z., Zavolan M., Zhu Y., Zimmer A., Carninci P., Hayatsu N.,
RA Hirozane-Kishikawa T., Konno H., Nakamura M., Sakazume N., Sato K.,
RA Shiraki T., Waki K., Kawai J., Aizawa K., Arakawa T., Fukuda S.,
RA Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I.,
RA Miyazaki A., Sakai K., Sasaki D., Shibata K., Shinagawa A.,
RA Yasunishi A., Yoshino M., Waterston R., Lander E.S., Rogers J.,
RA Birney E., Hayashizaki Y.;
RT "Analysis of the mouse transcriptome based on functional annotation of
RT 60,770 full-length cDNAs.";
RL Nature 420:563-573(2002).
RN [9]
RN NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1), AND VARIANT
RN SER-207.
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altshul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.P., Jordan H., Moore T., Max A.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Udwin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R., Touchman J.W., Green E.D., Dickinson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalios D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [10]
RN NUCLEOTIDE SEQUENCE OF 1-270 (ISOFORM 1), AND PROTEIN SEQUENCE OF
RN 26-65.
RX MEDLINE=91004221; PubMed=1698557; DOI=10.1016/0092-8674(90)90303-V;
RA Huang E., Nocka K., Beier D.R., Chu T.Y., Buck J., Lahn H.W.,
RA Wellner D., Leder P., Besmer P.;
RT "The hematopoietic growth factor KL is encoded by the Sl locus and is
RT the ligand of the c-kit receptor, the gene product of the W locus.";
RL Cell 63:225-233(1990).
RN [11]
RN NUCLEOTIDE SEQUENCE OF 1-201.
RX MEDLINE=91004220; PubMed=1698556; DOI=10.1016/0092-8674(90)90302-U;
RA Zsebo K.M., Williams D.A., Geissler E.N., Broudy V.C., Martin F.H.,
RA Atkins H.L., Hsu R.-Y., Birkett N.C., Okino K.H., Murdock D.C.,
RA Jacobsen F.W., Langley K.E., Smith K.A., Takeishi T., Cattasach B.M.,
RA Galli S.J., Suggs S.V.;
RT "Stem cell factor is encoded at the Sl locus of the mouse and is the
RT ligand for the c-kit tyrosine kinase receptor.";
RL Cell 63:213-224(1990).
RN [12]
RN PROTEIN SEQUENCE OF 26-53.
RX MEDLINE=91004216; PubMed=1698554; DOI=10.1016/0092-8674(90)90298-S;
RA Copeland N.G., Gilbert D.J., Cho B.C., Donovan P.J., Jenkins N.A.,
RA Cosman D., Anderson D., Lyman S.D., Williams D.E.;
RT "Mast cell growth factor maps near the steel locus on mouse chromosome
RT 10 and is deleted in a number of steel alleles.";
RL Cell 63:175-183(1990).
RN [13]

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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 22, 2006, 18:19:42 ; Search time 25.2121 Seconds
(without alignments)
682.074 Million cell updates/sec

Title: US-10-620-642-46

Perfect score: 1061

Sequence: 1 MKKTQTWILTCYLLQLLFN.....AASSLRNDSSNSKIYILI 208

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents AA.*

1: /cgn2_6/prodata/1/1aa/5-COMB.pep.*

2: /cgn2_6/prodata/1/1aa/6-COMB.pep.*

3: /cgn2_6/prodata/1/1aa/H-COMB.pep.*

4: /cgn2_6/prodata/1/1aa/PCITUS-COMB.pep.*

5: /cgn2_6/prodata/1/1aa/RE-COMB.pep.*

6: /cgn2_6/prodata/1/1aa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1061	100.0	208	2	US-08-836-252A-6
2	1061	100.0	208	2	US-08-482-918-46
3	1061	100.0	208	2	US-09-224-681-46
4	1061	100.0	208	2	US-08-336-728A-46
5	1061	100.0	208	2	US-09-635-251-46
6	1061	100.0	208	2	US-09-224-683-46
7	1061	100.0	208	2	US-09-604-325A-46
8	1030	97.1	273	1	US-08-220-379B-2
9	1030	97.1	273	1	US-08-628-428-9
10	1030	97.1	273	2	US-08-482-918-48
11	1030	97.1	273	2	US-08-482-918-49
12	1030	97.1	273	2	US-08-482-918-61
13	1030	97.1	273	2	US-09-224-681-48
14	1030	97.1	273	2	US-09-224-681-49
15	1030	97.1	273	2	US-09-224-681-61
16	1030	97.1	273	2	US-08-336-728A-48
17	1030	97.1	273	2	US-08-336-728A-49
18	1030	97.1	273	2	US-08-336-728A-61
19	1030	97.1	273	2	US-09-635-251-48
20	1030	97.1	273	2	US-09-635-251-49
21	1030	97.1	273	2	US-09-635-251-61
22	1030	97.1	273	2	US-09-224-683-48
23	1030	97.1	273	2	US-09-224-683-49
24	1030	97.1	273	2	US-09-224-683-61
25	1030	97.1	273	2	US-09-604-325A-48
26	1030	97.1	273	2	US-09-604-325A-49
27	1030	97.1	273	2	US-09-604-325A-61

28	1030	97.1	290	2	US-09-949-016-9393	Sequence 9393, Ap
29	1030	97.1	290	2	US-09-949-016-9394	Sequence 9394, Ap
30	1026	96.7	273	2	US-08-482-918-50	Sequence 50, Appl
31	1026	96.7	273	2	US-09-224-681-50	Sequence 50, Appl
32	1026	96.7	273	2	US-08-336-728A-50	Sequence 50, Appl
33	1026	96.7	273	2	US-09-635-251-50	Sequence 50, Appl
34	1026	96.7	273	2	US-09-224-683-50	Sequence 50, Appl
35	1026	96.7	273	2	US-09-604-325A-50	Sequence 50, Appl
36	1001	94.3	196	2	US-08-336-728A-44	Sequence 44, Appl
37	975	91.9	424	4	PCT-US95-03866-14	Sequence 14, Appl
38	974	91.8	424	4	PCT-US95-03866-12	Sequence 12, Appl
39	920	86.7	266	2	US-08-482-918-57	Sequence 57, Appl
40	920	86.7	266	2	US-09-224-681-57	Sequence 57, Appl
41	920	86.7	266	2	US-08-336-728A-57	Sequence 57, Appl
42	920	86.7	266	2	US-09-635-251-57	Sequence 57, Appl
43	920	86.7	266	2	US-09-224-683-57	Sequence 57, Appl
44	920	86.7	266	2	US-09-604-325A-57	Sequence 57, Appl
45	898	84.6	248	1	US-08-955-848A-82	Sequence 82, Appl

ALIGNMENTS

RESULT 1
US-08-836-252A-6
; Sequence 6, Application US/08836252A
; Patent No. 6177556
; GENERAL INFORMATION:
; APPLICANT: Sharkey, Andrew M.
; APPLICANT: Smith, Stephen K.
; APPLICANT: Dellow, Kimberley A.
; TITLE OF INVENTION: HUMAN SCF, A SPLICE VARIANT THEREOF, ITS
; NUMBER OF INVENTION: PHARMACEUTICAL USE
; NUMBER OF SEQUENCES: 18
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C.
; STREET: 1100 NEW YORK AVENUE, N.W. SUITE 600
; CITY: WASHINGTON
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/836,252A
; FILING DATE: 31-JULY-1997
; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/GB95/02547
; FILING DATE: 31-OCT-1995
; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 9422293.2
; FILING DATE: 04-NOV-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 9508618.7
; FILING DATE: 28-APR-1995
; ATTORNEY/AGENT INFORMATION:
; NAME: ROBERT W. ESMOND
; REGISTRATION NUMBER: 32,893
; REFERENCE/DOCKET NUMBER: 0623.0550000
; TELEPHONE: (202) 371-2600
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 208 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein

US-08-836-252A-6

Query Match 100.0%; Score 1061; DB 2; Length 208;
Best Local Similarity 100.0%; Pred. No. 3.4e-101;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTTWTLCYLOLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTTWTLCYLOLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
QY 61 MDVLPCHWCWISVMVQLSDSLTDLKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
DB 61 MDVLPCHWCWISVMVQLSDSLTDLKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKGSFKSPPELFTPEEPRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
DB 121 KDLKGSFKSPPELFTPEEPRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208
DB 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208

RESULT 2

US-08-482-918-46
; Sequence 46, Application US/08482918
; Patent No. 6207417
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosseiman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/482,918
; FILING DATE: 07-JUN-1995
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/33005
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; INFORMATION FOR SEQ ID NO: 46:
; SEQUENCE CHARACTERISTICS:
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-482-918-46

Query Match 100.0%; Score 1061; DB 2; Length 208;
Best Local Similarity 100.0%; Pred. No. 3.4e-101;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTTWTLCYLOLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTTWTLCYLOLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPCHWCWISVMVQLSDSLTDLKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
DB 61 MDVLPCHWCWISVMVQLSDSLTDLKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKGSFKSPPELFTPEEPRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
DB 121 KDLKGSFKSPPELFTPEEPRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208
DB 181 KPFMLPPVAASLRNDSSSSSKYIYLI 208

RESULT 3

US-09-224-681-46
; Sequence 46, Application US/09224681
; Patent No. 6207454
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosseiman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Method for Enhancing the Efficiency of Gene
; TRANSFER WITH STEM CELL FACTOR (SCF) POLYPEPTIDE
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,681
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX:


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; INFORMATION FOR SEQ ID NO: 46:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 208 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-224-681-46

Query Match 100.0%; Score 1061; DB 2; Length 208;
Best Local Similarity 100.0%; Pred. No. 3.4e-101;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQWILTCIYQLQLLNFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQWILTCIYQLQLLNFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPCHWISWMVQLSDSLDLDKFSNISEGLSNYSIIIDKLVNIVDDLVECVKENS 120
Db 61 MDVLPCHWISWMVQLSDSLDLDKFSNISEGLSNYSIIIDKLVNIVDDLVECVKENS 120
QY 121 KDLKSFSPPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSTLSPKDSRVSVT 180
Db 121 KDLKSFSPPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSTLSPKDSRVSVT 180
QY 181 KPFLPPVAASSLRNDSSSSNKIYLI 208
Db 181 KPFLPPVAASSLRNDSSSSNKIYLI 208

RESULT 4
US-08-336-728A-46
; Sequence 46, Application US/08336728A
; Patent No. 6207802
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/336,728A
; FILING DATE: 09-NOV-1994
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
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; INFORMATION FOR SEQ ID NO: 46:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 208 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-336-728A-46

Query Match 100.0%; Score 1061; DB 2; Length 208;
Best Local Similarity 100.0%; Pred. No. 3.4e-101;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQWILTCIYQLQLLNFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQWILTCIYQLQLLNFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPCHWISWMVQLSDSLDLDKFSNISEGLSNYSIIIDKLVNIVDDLVECVKENS 120
Db 61 MDVLPCHWISWMVQLSDSLDLDKFSNISEGLSNYSIIIDKLVNIVDDLVECVKENS 120
QY 121 KDLKSFSPPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSTLSPKDSRVSVT 180
Db 121 KDLKSFSPPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSTLSPKDSRVSVT 180
QY 181 KPFLPPVAASSLRNDSSSSNKIYLI 208
Db 181 KPFLPPVAASSLRNDSSSSNKIYLI 208

RESULT 5
US-09-635-251-46
; Sequence 46, Application US/09635251
; Patent No. 6759215
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/635,251
; FILING DATE: 07-AUG-2000
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,182
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 04-OCT-1991
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
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; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/32957A
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 46:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 208 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 46:
US-09-635-251-46

Query Match 100.0%; Score 1061; DB 2; Length 208;
Best Local Similarity 100.0%; Pred. No. 3.4e-101;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKQTWILTCIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKQTWILTCIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWCWISWMVQLSDSLTDLKPSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
DB 61 MDVLPSCWCWISWMVQLSDSLTDLKPSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
QY 121 KDLKSKFSKSPRLFTPEFFRIFNRSIDAFKDFVVASETSCVWSSTLSPEKDSRVSVT 180
DB 121 KDLKSKFSKSPRLFTPEFFRIFNRSIDAFKDFVVASETSCVWSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASSLRNDSNSSSKYIYLI 208
DB 181 KPFMLPPVAASSLRNDSNSSSKYIYLI 208

RESULT 6
US-09-224-683-46
; Sequence 46, Application US/09224683
; Patent No. 6841147
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,683
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
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; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35136
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 46:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 208 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-224-683-46

Query Match 100.0%; Score 1061; DB 2; Length 208;
Best Local Similarity 100.0%; Pred. No. 3.4e-101;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKQTWILTCIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKQTWILTCIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWCWISWMVQLSDSLTDLKPSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
DB 61 MDVLPSCWCWISWMVQLSDSLTDLKPSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
QY 121 KDLKSKFSKSPRLFTPEFFRIFNRSIDAFKDFVVASETSCVWSSTLSPEKDSRVSVT 180
DB 121 KDLKSKFSKSPRLFTPEFFRIFNRSIDAFKDFVVASETSCVWSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASSLRNDSNSSSKYIYLI 208
DB 181 KPFMLPPVAASSLRNDSNSSSKYIYLI 208

RESULT 7
US-09-604-325A-46
; Sequence 46, Application US/09604325A
; Patent No. 6852313
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
```

STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/604,325A
FILING DATE: 17-Jun-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/32953
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 46:
SEQUENCE CHARACTERISTICS:
LENGTH: 208 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 46:
US-09-604-325A-46
Query Match 100.0%; Score 1061; DB 2; Length 208;
Best Local Similarity 100.0%; Pred. No. 3.4e-101; Mismatches 0; Indels 0; Gaps 0;
Matches 208; Conservative 0;
QY 1 MKKTQTWLTCTIYLQLLLFNPLVKTEGICRRNVTNNVDVTKLVANLPKDYMITLKYPG 60
DB 1 MKKTQTWLTCTIYLQLLLFNPLVKTEGICRRNVTNNVDVTKLVANLPKDYMITLKYPG 60
QY 61 MDVLPSCWISVMVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENS 120
DB 61 MDVLPSCWISVMVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENS 120
QY 121 KDLKSPKSPERLPTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
DB 121 KDLKSPKSPERLPTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
QY 181 KPFMLPPVAASLRDSSSNKYYLI 208
DB 181 KPFMLPPVAASLRDSSSNKYYLI 208
RESULT 8
US-08-220-379B-2
Sequence 2, Application US/08220379B
Patent No. 5525708
GENERAL INFORMATION:
APPLICANT: No. 5525708ka, Karl
APPLICANT: Lobell, Robert B
TITLE OF INVENTION: STABILIZED DIMER OF KIT LIGAND
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Neave
STREET: 1251 Avenue of the Americas

CITY: New York
STATE: New York
COUNTRY: United States of America
ZIP: 10020
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/220,379B
FILING DATE: 28-MAR-1994
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Haley Jr, James F
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: Cytomed/2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-596-9000
TELEFAX: 212-596-9090
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: cleavage site
LOCATION: 164..165
US-08-220-379B-2
Query Match 97.1%; Score 1030; DB 1; Length 273;
Best Local Similarity 99.5%; Pred. No. 7.9e-98;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTIYLQLLLFNPLVKTEGICRRNVTNNVDVTKLVANLPKDYMITLKYPG 60
DB 1 MKKTQTWLTCTIYLQLLLFNPLVKTEGICRRNVTNNVDVTKLVANLPKDYMITLKYPG 60
QY 61 MDVLPSCWISVMVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENS 120
DB 61 MDVLPSCWISVMVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENS 120
QY 121 KDLKSPKSPERLPTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
DB 121 KDLKSPKSPERLPTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
QY 181 KPFMLPPVAASLRDSSSNK 203
DB 181 KPFMLPPVAASLRDSSSNRK 203
RESULT 9
US-08-628-428-9
Sequence 9, Application US/08628428
Patent No. 5885962
GENERAL INFORMATION:
APPLICANT: Lu, Haieng
TITLE OF INVENTION: SCF ANALOG COMPOSITIONS AND METHODS
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: Amgen Inc.
STREET: 1840 DeHavilland Drive
CITY: Thousand Oaks
STATE: CA
COUNTRY: USA
ZIP: 91320-1789
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0, Version #1.30
CURRENT APPLICATION DATA:

TITLE OF INVENTION: Stem Cell Factor
NUMBER OF SEQUENCES: 104
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/482,918
FILING DATE: 07-JUN-1995
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/33005
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 49:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids

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; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-482-918-49

Query Match          97.1%; Score 1030; DB 2; Length 273;
Best Local Similarity 99.5%; Pred. No. 7.9e-98;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTQTWILTCTIYQLQLLNFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYPG 60
Db 1 MKKTQTWILTCTIYQLQLLNFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYPG 60

QY 61 MDVLPSCWISSEMVVQLSDSLDLDKFSNISEGLSNYSIIDKLNVNVDLVECVKENS 120
Db 61 MDVLPSCWISSEMVVQLSDSLDLDKFSNISEGLSNYSIIDKLNVNVDLVECVKENS 120

QY 121 KDLKKSFKSPERLFTPEEFFRIFNRSIDAFKDFVVASSETDCVWSSTLSPKDSRVSVT 180
Db 121 KDLKKSFKSPERLFTPEEFFRIFNRSIDAFKDFVVASSETDCVWSSTLSPKDSRVSVT 180

QY 181 KPFMLPPVAASSLRNDSSSSNSK 203
Db 181 KPFMLPPVAASSLRNDSSSSNSK 203

RESULT 13
US-09-224-681-48
; Sequence 48, Application US/09224681
; Patent No. 6207454
; GENERAL INFORMATION:
; APPLICANT: Zsebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Method for Enhancing the Efficiency of Gene
; TRANSFER WITH STEM CELL FACTOR (SCF) POLYPEPTIDE
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION NUMBER: US/09/224,681
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
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; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX:
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-224-681-48

Query Match          97.1%; Score 1030; DB 2; Length 273;
Best Local Similarity 99.5%; Pred. No. 7.9e-98;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFPNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
Db 1 MKKTQTWLTCTIYLQLLFPNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
Db 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120

QY 121 KDLKSKFSKPEPRLFTPEEFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
Db 121 KDLKSKFSKPEPRLFTPEEFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180

QY 181 KPFMLPPVAASLRNDSSSNK 203
Db 181 KPFMLPPVAASLRNDSSSNK 203

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RESULT 14
US-09-224-681-49
; Sequence 49, Application US/09224681
; Patent No. 6207454
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Method for Enhancing the Efficiency of Gene
; TITLE OF INVENTION: Transfer with Stem Cell Factor (SCF) Polypeptide
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESS: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,681
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:

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; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX:
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-224-681-49

Query Match          97.1%; Score 1030; DB 2; Length 273;
Best Local Similarity 99.5%; Pred. No. 7.9e-98;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFPNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
Db 1 MKKTQTWLTCTIYLQLLFPNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
Db 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120

QY 121 KDLKSKFSKPEPRLFTPEEFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
Db 121 KDLKSKFSKPEPRLFTPEEFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180

QY 181 KPFMLPPVAASLRNDSSSNK 203
Db 181 KPFMLPPVAASLRNDSSSNK 203

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RESULT 15
US-09-224-681-61
; Sequence 61, Application US/09224681
; Patent No. 6207454
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Method for Enhancing the Efficiency of Gene
; TITLE OF INVENTION: Transfer with Stem Cell Factor (SCF) Polypeptide
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESS: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30

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;; CURRENT APPLICATION DATA:
;; APPLICATION NUMBER: US/09/224,681
;; FILING DATE:
;; CLASSIFICATION:
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 09/005,893
;; FILING DATE: 12-JAN-1998
;; CLASSIFICATION:
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 08/449,653
;; FILING DATE: 24-MAY-1995
;; CLASSIFICATION:
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/982,255
;; FILING DATE: 25-NOV-1992
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/589,701
;; FILING DATE: 01-OCT-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/573,616
;; FILING DATE: 24-AUG-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/537,198
;; FILING DATE: 11-JUN-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/422,383
;; FILING DATE: 16-OCT-1989
;; ATTORNEY/AGENT INFORMATION:
;; NAME: Clough, David W.
;; REGISTRATION NUMBER: 36,107
;; REFERENCE/DOCKET NUMBER: 01017/35199
;; TELECOMMUNICATION INFORMATION:
;; TELEPHONE: 312/474-6300
;; TELEFAX: 312/474-0448
;; TELEX:
;; INFORMATION FOR SEQ ID NO: 61:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 273 amino acids
;; TYPE: amino acid
;; TOPOLOGY: linear
;; MOLECULE TYPE: protein
US-09-224-681-61

Query Match 97.1%; Score 1030; DB 2; Length 273;
Best Local Similarity 99.5%; Pred. No. 7.9e-98;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTYIQLLLFNPLVKTGICRNVTNNVKDVTKLVANLPKQYMITLKYYPG 60
Db 1 MKKTQTWLTCTYIQLLLFNPLVKTGICRNVTNNVKDVTKLVANLPKQYMITLKYYPG 60

Qy 61 MDVLPCHWISWMVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVINIVDDLVECVKENS 120
Db 61 MDVLPCHWISWMVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVINIVDDLVECVKENS 120

Qy 121 KDLKKSFKSPPEPRLFTPEFFRIFNRSIDAPKDFVVASSTDCVVSSTLSPEKDSRVST 180
Db 121 KDLKKSFKSPPEPRLFTPEFFRIFNRSIDAPKDFVVASSTDCVVSSTLSPEKDSRVST 180

Qy 181 KPFMLPPVAASSLRNDSSSSNK 203
Db 181 KPFMLPPVAASSLRNDSSSSNRK 203

Search completed: February 22, 2006, 18:21:58
Job time : 26.2121 secs

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GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: February 22, 2006, 18:20:42 ; Search time 93.0854 Seconds
(without alignments)
1046.014 Million cell updates/sec

Title: US-10-620-642-46

Perfect score: 1061

Sequence: 1 MKQTWTILTYLQLLFN.....AASSLRNDSSSSNKIYLI 208

Scoring table:

BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA_Main:

- 1: /cgm2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
- 2: /cgm2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep.*
- 3: /cgm2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
- 4: /cgm2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep.*
- 5: /cgm2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep.*
- 6: /cgm2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1061	100.0	208	3	US-09-005-243-46
2	1061	100.0	208	3	US-09-224-683-46
3	1061	100.0	208	3	US-10-175-608-46
4	1061	100.0	208	5	US-10-620-642-46
5	1030	97.1	273	3	US-09-005-243-48
6	1030	97.1	273	3	US-09-005-243-49
7	1030	97.1	273	3	US-09-005-243-61
8	1030	97.1	273	3	US-09-224-683-48
9	1030	97.1	273	3	US-09-224-683-49
10	1030	97.1	273	3	US-09-224-683-61
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13	1030	97.1	273	4	US-10-175-608-61
14	1030	97.1	273	5	US-10-620-642-48
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16	1030	97.1	273	5	US-10-620-642-61
17	1026	96.7	273	3	US-09-005-243-50
18	1026	96.7	273	3	US-09-224-683-50
19	1026	96.7	273	4	US-10-175-608-50
20	1026	96.7	273	5	US-10-620-642-50
21	920	86.7	266	3	US-09-005-243-57
22	920	86.7	266	3	US-09-224-683-57
23	920	86.7	266	4	US-10-175-608-57
24	920	86.7	266	5	US-10-620-642-57
25	890	83.9	245	3	US-09-005-243-63
26	890	83.9	245	3	US-09-224-683-63
27	890	83.9	245	4	US-10-175-608-63

28	890	83.9	245	5	US-10-688-845-87
29	890	83.9	245	5	US-10-620-642-63
30	884	83.3	271	3	US-09-005-243-52
31	884	83.3	271	3	US-09-224-683-52
32	884	83.3	271	4	US-10-175-608-52
33	884	83.3	271	5	US-10-620-642-52
34	875	82.5	273	3	US-09-005-243-53
35	875	82.5	273	3	US-09-224-683-53
36	875	82.5	273	4	US-10-175-608-53
37	875	82.5	273	5	US-10-620-642-53
38	865	81.5	195	3	US-09-005-243-44
39	865	81.5	195	3	US-09-224-683-44
40	865	81.5	195	4	US-10-175-608-44
41	865	81.5	195	5	US-10-620-642-44
42	862.5	81.3	274	3	US-09-005-243-51
43	862.5	81.3	274	3	US-09-224-683-51
44	862.5	81.3	274	4	US-10-175-608-51
45	862.5	81.3	274	5	US-10-620-642-51

ALIGNMENTS

RESULT 1
US-09-005-243-46
; Sequence 46, Application US/09005243
; Patent No. US20020018763A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosseiman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/005,243
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/34465

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; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 46:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 208 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-005-243-46

Query Match 100.0%; Score 1061; DB 3; Length 208;
Best Local Similarity 100.0%; Pred. No. 7.6e-92;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFFNPLVKTGICRRNRTNNVKDVTYKLVANLPKDYMITLKYYPG 60
DB 1 MKKTQTWLTCTIYLQLLFFNPLVKTGICRRNRTNNVKDVTYKLVANLPKDYMITLKYYPG 60
QY 61 MDVLPSCWISWVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIIVDDLVCECKENSS 120
DB 61 MDVLPSCWISWVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIIVDDLVCECKENSS 120
QY 121 KDLKSKFSKSPRLFTPEEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
DB 121 KDLKSKFSKSPRLFTPEEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASSLRNDSNSSSKYIYLI 208
DB 181 KPFMLPPVAASSLRNDSNSSSKYIYLI 208

RESULT 2
US-09-224-683-46
; Sequence 46, Application US/09224683
; Patent No. US20020031491A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESS: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION NUMBER: US/09/224,683
; FILING DATE:
; CLASSIFICATION:
; APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701

; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 46:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 208 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-005-243-46

Query Match 100.0%; Score 1061; DB 3; Length 208;
Best Local Similarity 100.0%; Pred. No. 7.6e-92;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFFNPLVKTGICRRNRTNNVKDVTYKLVANLPKDYMITLKYYPG 60
DB 1 MKKTQTWLTCTIYLQLLFFNPLVKTGICRRNRTNNVKDVTYKLVANLPKDYMITLKYYPG 60
QY 61 MDVLPSCWISWVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIIVDDLVCECKENSS 120
DB 61 MDVLPSCWISWVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIIVDDLVCECKENSS 120
QY 121 KDLKSKFSKSPRLFTPEEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
DB 121 KDLKSKFSKSPRLFTPEEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASSLRNDSNSSSKYIYLI 208
DB 181 KPFMLPPVAASSLRNDSNSSSKYIYLI 208

RESULT 3
US-10-175-608-46
; Sequence 46, Application US/10175608
; Publication No. US2004018104A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESS: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/175,608
; FILING DATE: 16-Oct-2002
```


; Sequence 48, Application US/09005243
; Patent No. US20020018763A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosseiman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/005,243
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/34465
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-005-243-48

Query Match 97.1%; Score 1030; DB 3; Length 273;
Best Local Similarity 99.5%; Pred. No. 9.2e-89;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTOTWLTCTLYQLLFPNPLVKTEGICRNVTNNKDVTKLVANLPKDVNITLKYPG 60
DB 1 MKKTOTWLTCTLYQLLFPNPLVKTEGICRNVTNNKDVTKLVANLPKDVNITLKYPG 60
QY 61 MDVLFCHWISVMVQLSDLTLLDKFNSISGLSNYSIIDKLVNIVDDLVECVKENS 120
DB 61 MDVLFCHWISVMVQLSDLTLLDKFNSISGLSNYSIIDKLVNIVDDLVECVKENS 120
QY 121 KDLKSKFSKPEPRLTPEEPRIFNRSIDAFKDFVVASETSDCVVSSITLSPKDSRVSVT 180

Db 121 KDLKSKFSKPEPRLTPEEPRIFNRSIDAFKDFVVASETSDCVVSSITLSPKDSRVSVT 180
QY 181 KPFMLPPVAASLRNDSSSSNSK 203
DB 181 KPFMLPPVAASLRNDSSSSNRK 203
RESULT 6
US-09-005-243-49
; Sequence 49, Application US/09005243
; Patent No. US20020018763A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosseiman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/005,243
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/34465
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-005-243-49
Query Match 97.1%; Score 1030; DB 3; Length 273;
Best Local Similarity 99.5%; Pred. No. 9.2e-89;

	Matches	202;	Conservative	0;	Mismatches	1;	Indels	0;	Gaps	0;
QY	1	MKKTQTWILTCIYLQLLFNPLVKTEGICRNRVTNNVKTCLVANLPKDYMITLKVPVG	60							
Db	1	MKKTQTWILTCIYLQLLFNPLVKTEGICRNRVTNNVKTCLVANLPKDYMITLKVPVG	60							
QY	61	MDVLPSHCWITSEMVVQLSDSLTDLDFSNISGLSNYSIDKLWNIVDDLVECVKENSS	120							
Db	61	MDVLPSHCWITSEMVVQLSDSLTDLDFSNISGLSNYSIDKLWNIVDDLVECVKENSS	120							
QY	121	KDLKKSPKSPPELPTPEBFRFIRNSRIDAFKDPVVASETSDCVSSTLSPEKDSRVSVT	180							
Db	121	KDLKKSPKSPPELPTPEBFRFIRNSRIDAFKDPVVASETSDCVSSTLSPEKDSRVSVT	180							
QY	181	KPFMLPPVAASSLRNDSSSSNSK	203							
Db	181	KPFMLPPVAASSLRNDSSSSNRK	203							

RESULT 7
US-09-005-243-61
; Sequence 61, Application US/09005243
; Patent No. US20020018763A1
; GENERAL INFORMATION:
; APPLICANT: zsebo, Krisztina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/005,243
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/34465
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856

;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/537,198
;; FILING DATE: 11-JUN-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/422,383
;; FILING DATE: 16-OCT-1989
;; ATTORNEY/AGENT INFORMATION:
;; NAME: Clough, David W.
;; REGISTRATION NUMBER: 36,107
;; REFERENCE/DOCKET NUMBER: 01017/35136
;; TELEPHONE: 312/474-6300
;; TELEFAX: 312/474-0448
;; TELEX: 25-3856
;; INFORMATION FOR SEQ ID NO: 48:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 273 amino acids
;; TYPE: amino acid
;; TOPOLOGY: linear
;; MOLECULE TYPE: protein
US-09-224-683-48

Query Match 97.1%; Score 1030; DB 3; Length 273;
Best Local Similarity 99.5%; Pred. No. 9.2e-89;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
DB 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120

QY 121 KDLKSKFSKPEPRLTPPEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPKDSRVSVT 180
DB 121 KDLKSKFSKPEPRLTPPEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPKDSRVSVT 180

QY 181 KPFMLPPVAASSLRNDSNSSNK 203
DB 181 KPFMLPPVAASSLRNDSNSSNK 203

RESULT 9
US-09-224-683-49
; Sequence 49, Application US/09224683
; Patent No. US20020031491A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,683
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998

;; CLASSIFICATION:
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 08/449,653
;; FILING DATE: 24-MAY-1995
;; CLASSIFICATION:
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/982,255
;; FILING DATE: 25-NOV-1992
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/589,701
;; FILING DATE: 01-OCT-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/573,616
;; FILING DATE: 24-AUG-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/537,198
;; FILING DATE: 11-JUN-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/422,383
;; FILING DATE: 16-OCT-1989
;; ATTORNEY/AGENT INFORMATION:
;; NAME: Clough, David W.
;; REGISTRATION NUMBER: 36,107
;; REFERENCE/DOCKET NUMBER: 01017/35136
;; TELEPHONE: 312/474-6300
;; TELEFAX: 312/474-0448
;; TELEX: 25-3856
;; INFORMATION FOR SEQ ID NO: 49:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 273 amino acids
;; TYPE: amino acid
;; STRANDEDNESS: single
;; TOPOLOGY: linear
;; MOLECULE TYPE: protein
US-09-224-683-49

Query Match 97.1%; Score 1030; DB 3; Length 273;
Best Local Similarity 99.5%; Pred. No. 9.2e-89;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
DB 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120

QY 121 KDLKSKFSKPEPRLTPPEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPKDSRVSVT 180
DB 121 KDLKSKFSKPEPRLTPPEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPKDSRVSVT 180

QY 181 KPFMLPPVAASSLRNDSNSSNK 203
DB 181 KPFMLPPVAASSLRNDSNSSNK 203

RESULT 10
US-09-224-683-61
; Sequence 61, Application US/09224683
; Patent No. US20020031491A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago

STATE: Illinois
 COUNTRY: United States of America
 ZIP: 60606-6402
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent In Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/224,683
 FILING DATE:
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 09/005,893
 FILING DATE: 12-JAN-1998
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 08/449,653
 FILING DATE: 24-MAY-1995
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 07/982,255
 FILING DATE: 25-NOV-1992
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 07/589,701
 FILING DATE: 01-OCT-1990
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 07/573,616
 FILING DATE: 24-AUG-1990
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 07/537,198
 FILING DATE: 11-JUN-1990
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 07/422,383
 FILING DATE: 16-OCT-1989
 ATTORNEY/AGENT INFORMATION:
 NAME: Clough, David W.
 REGISTRATION NUMBER: 36,107
 REFERENCE/DOCKET NUMBER: 01017/35136
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 312/474-6300
 TELEFAX: 312/474-0448
 TELEX: 25-3856
 INFORMATION FOR SEQ ID NO: 61:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 273 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-09-224-683-61

Query Match 97.1%; Score 1030; DB 3; Length 273;
 Best Local Similarity 99.5%; Pred. No. 9.2e-89;
 Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 1 MKKTQTWLTCTIYLQLLFNPLVTEGICRRNVTNNVKDVKLVANLPKDYMITLKYPG 60
 Db 1 MKKTQTWLTCTIYLQLLFNPLVTEGICRRNVTNNVKDVKLVANLPKDYMITLKYPG 60
 QY 61 MDVLPSCWISWVQVLSDSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
 Db 61 MDVLPSCWISWVQVLSDSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
 QY 121 KDLKSPKSPRLPTPEPRIFNRSIDAPKDFVVASSETDCVVSSTLSPEKDSRVSVT 180
 Db 121 KDLKSPKSPRLPTPEPRIFNRSIDAPKDFVVASSETDCVVSSTLSPEKDSRVSVT 180
 QY 181 KPFMLPPVAASLRNDSSSSNSK 203
 Db 181 KPFMLPPVAASLRNDSSSSNSK 203

RESULT 11

US-10-175-608-48
 Sequence 48, Application US/10175608
 Publication No. US20040181044A1
 GENERAL INFORMATION:
 APPLICANT: Zeebo, Kristina M.
 Bosselman, Robert A.
 Suggs, Sidney V.
 Martin, Francis H.
 TITLE OF INVENTION: Stem Cell Factor
 NUMBER OF SEQUENCES: 104
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
 STREET: 6300 Sears Tower, 233 South Wacker Drive
 CITY: Chicago
 STATE: Illinois
 COUNTRY: United States of America
 ZIP: 60606-6402
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent In Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/10/175,608
 FILING DATE: 16-Oct-2002
 CLASSIFICATION: <Unknown>
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 09/635,249
 FILING DATE: 07-AUG-2000
 APPLICATION NUMBER: 09/486,546
 FILING DATE: 24-MAY-1995
 APPLICATION NUMBER: 08/172,329
 FILING DATE: 21-DEC-1993
 APPLICATION NUMBER: 07/982,255
 FILING DATE: 25-NOV-1992
 APPLICATION NUMBER: 07/684,535
 FILING DATE: 10-APR-1991
 APPLICATION NUMBER: 09/589,701
 FILING DATE: 10-OCT-1991
 APPLICATION NUMBER: 07/573,616
 FILING DATE: 24-AUG-1990
 APPLICATION NUMBER: 07/537,198
 FILING DATE: 11-JUN-1990
 APPLICATION NUMBER: 07/422,383
 FILING DATE: 16-OCT-1989
 ATTORNEY/AGENT INFORMATION:
 NAME: Clough, David W.
 REGISTRATION NUMBER: 36,107
 REFERENCE/DOCKET NUMBER: 01017/35199
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 312/474-6300
 TELEFAX: 312/474-0448
 TELEX: <Unknown>
 INFORMATION FOR SEQ ID NO: 48:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 273 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 SEQUENCE DESCRIPTION: SEQ ID NO: 48:
 US-10-175-608-48

Query Match 97.1%; Score 1030; DB 4; Length 273;
 Best Local Similarity 99.5%; Pred. No. 9.2e-89;
 Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 1 MKKTQTWLTCTIYLQLLFNPLVTEGICRRNVTNNVKDVKLVANLPKDYMITLKYPG 60
 Db 1 MKKTQTWLTCTIYLQLLFNPLVTEGICRRNVTNNVKDVKLVANLPKDYMITLKYPG 60
 QY 61 MDVLPSCWISWVQVLSDSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
 Db 61 MDVLPSCWISWVQVLSDSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120

QY 121 KDLKSKSPRLTPEFFRIFNRSIDAFKDFVVASETDCVVSSTLSPEKDSRVST 180
 ; Sequence 49, Application US/10175608
 ; Publication No. US20040181044A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Zeebo, Kristina M.
 ; Bosselman, Robert A.
 ; Suggs, Sidney V.
 ; Martin, Francis H.
 ; TITLE OF INVENTION: Stem Cell Factor
 ; NUMBER OF SEQUENCES: 104
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
 ; STREET: 6300 Sears Tower, 233 South Wacker Drive
 ; CITY: Chicago
 ; STATE: Illinois
 ; COUNTRY: United States of America
 ; ZIP: 60606-6402
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent in Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/10/175,608
 ; FILING DATE: 16-Oct-2002
 ; CLASSIFICATION: <Unknown>
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: 09/635,249
 ; FILING DATE: 07-AUG-2000
 ; APPLICATION NUMBER: 09/486,546
 ; FILING DATE: 24-MAY-1995
 ; APPLICATION NUMBER: 08/172,329
 ; FILING DATE: 21-DEC-1993
 ; APPLICATION NUMBER: 07/982,255
 ; FILING DATE: 25-NOV-1992
 ; APPLICATION NUMBER: 07/684,535
 ; FILING DATE: 10-APR-1991
 ; APPLICATION NUMBER: 09/589,701
 ; FILING DATE: 10-OCT-1991
 ; APPLICATION NUMBER: 07/573,616
 ; FILING DATE: 24-AUG-1990
 ; APPLICATION NUMBER: 07/537,198
 ; FILING DATE: 11-JUN-1990
 ; APPLICATION NUMBER: 07/422,383
 ; FILING DATE: 16-OCT-1989
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Clough, David W.
 ; REGISTRATION NUMBER: 36,107
 ; REFERENCE/DOCKET NUMBER: 01017/35199
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 312/474-6300
 ; TELEFAX: 312/474-0448
 ; TELEX: <Unknown>
 ; INFORMATION FOR SEQ ID NO: 49:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 273 amino acids
 ; TYPE: amino acid
 ; STRANDEDNESS: single
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein
 ; SEQUENCE DESCRIPTION: SEQ ID NO: 49:
 ; US-10-175-608-49

Query Match 97.1%; Score 1030; DB 4; Length 273;
 Best Local Similarity 99.5%; Pred. No. 9.2e-89;
 Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGEGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
 ; Sequence 61, Application US/10175608
 ; Publication No. US20040181044A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Zeebo, Kristina M.
 ; Bosselman, Robert A.
 ; Suggs, Sidney V.
 ; Martin, Francis H.
 ; TITLE OF INVENTION: Stem Cell Factor
 ; NUMBER OF SEQUENCES: 104
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
 ; STREET: 6300 Sears Tower, 233 South Wacker Drive
 ; CITY: Chicago
 ; STATE: Illinois
 ; COUNTRY: United States of America
 ; ZIP: 60606-6402
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent in Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/10/175,608
 ; FILING DATE: 16-Oct-2002
 ; CLASSIFICATION: <Unknown>
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: 09/635,249
 ; FILING DATE: 07-AUG-2000
 ; APPLICATION NUMBER: 09/486,546
 ; FILING DATE: 24-MAY-1995
 ; APPLICATION NUMBER: 08/172,329
 ; FILING DATE: 21-DEC-1993
 ; APPLICATION NUMBER: 07/982,255
 ; FILING DATE: 25-NOV-1992
 ; APPLICATION NUMBER: 07/684,535
 ; FILING DATE: 10-APR-1991
 ; APPLICATION NUMBER: 09/589,701
 ; FILING DATE: 10-OCT-1991
 ; APPLICATION NUMBER: 07/573,616
 ; FILING DATE: 24-AUG-1990
 ; APPLICATION NUMBER: 07/537,198
 ; FILING DATE: 11-JUN-1990
 ; APPLICATION NUMBER: 07/422,383
 ; FILING DATE: 16-OCT-1989
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Clough, David W.
 ; REGISTRATION NUMBER: 36,107
 ; REFERENCE/DOCKET NUMBER: 01017/35199
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 312/474-6300
 ; TELEFAX: 312/474-0448
 ; TELEX: <Unknown>
 ; INFORMATION FOR SEQ ID NO: 49:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 273 amino acids
 ; TYPE: amino acid
 ; STRANDEDNESS: single
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein
 ; SEQUENCE DESCRIPTION: SEQ ID NO: 49:
 ; US-10-175-608-49

TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 61:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 61:
US-10-175-608-61

Query Match 97.1%; Score 1030; DB 4; Length 273;
Best Local Similarity 99.5%; Pred. No. 9.2e-89;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYQLLLFNPLVKTGICRNVNNDVTKLVANLPKDYMTLKYVPG 60
DB 1 MKKTQTWLTCTIYQLLLFNPLVKTGICRNVNNDVTKLVANLPKDYMTLKYVPG 60

QY 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIIDKLVNIVDDLVECVKENS 120
DB 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIIDKLVNIVDDLVECVKENS 120

QY 121 KDLKSKFSKPEPRLFTPEEFPFRFNRSIDAFKDFVVASETSDCVWSSTLSPEKDSRVST 180
DB 121 KDLKSKFSKPEPRLFTPEEFPFRFNRSIDAFKDFVVASETSDCVWSSTLSPEKDSRVST 180

QY 181 KPFMLPPVAASLRNDSSSNK 203
DB 181 KPFMLPPVAASLRNDSSSNK 203

RESULT 14
US-10-620-642-48
Sequence 48, Application US/10620642
Publication No. US2005080250A1
GENERAL INFORMATION:
APPLICANT: Zaebo, Krisztina M.
Bosselman, Robert A.
Suggs, Sidney V.
Martin, Francis H.
TITLE OF INVENTION: Stem Cell Factor
NUMBER OF SEQUENCES: 104
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/620,642
FILING DATE: 16-Jul-2003
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/10/175,608
FILING DATE: 16-Oct-2002
APPLICATION NUMBER: 09/635,249
FILING DATE: 07-AUG-2000
APPLICATION NUMBER: 09/486,546
FILING DATE: 24-MAY-1995
APPLICATION NUMBER: 08/172,329
FILING DATE: 21-DEC-1993
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/684,535
FILING DATE: 10-APR-1991

APPLICATION NUMBER: 09/589,701
FILING DATE: 10-OCT-1991
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/35199
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 48:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 48:
US-10-620-642-48

Query Match 97.1%; Score 1030; DB 5; Length 273;
Best Local Similarity 99.5%; Pred. No. 9.2e-89;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYQLLLFNPLVKTGICRNVNNDVTKLVANLPKDYMTLKYVPG 60
DB 1 MKKTQTWLTCTIYQLLLFNPLVKTGICRNVNNDVTKLVANLPKDYMTLKYVPG 60

QY 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIIDKLVNIVDDLVECVKENS 120
DB 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIIDKLVNIVDDLVECVKENS 120

QY 121 KDLKSKFSKPEPRLFTPEEFPFRFNRSIDAFKDFVVASETSDCVWSSTLSPEKDSRVST 180
DB 121 KDLKSKFSKPEPRLFTPEEFPFRFNRSIDAFKDFVVASETSDCVWSSTLSPEKDSRVST 180

QY 181 KPFMLPPVAASLRNDSSSNK 203
DB 181 KPFMLPPVAASLRNDSSSNK 203

RESULT 15
US-10-620-642-49
Sequence 49, Application US/10620642
Publication No. US2005080250A1
GENERAL INFORMATION:
APPLICANT: Zaebo, Krisztina M.
Bosselman, Robert A.
Suggs, Sidney V.
Martin, Francis H.
TITLE OF INVENTION: Stem Cell Factor
NUMBER OF SEQUENCES: 104
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/620,642
FILING DATE: 16-Jul-2003
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/10/175,608
FILING DATE: 16-Oct-2002
APPLICATION NUMBER: 09/635,249
FILING DATE: 07-AUG-2000
APPLICATION NUMBER: 09/486,546
FILING DATE: 24-MAY-1995
APPLICATION NUMBER: 08/172,329
FILING DATE: 21-DEC-1993
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/684,535
FILING DATE: 10-APR-1991

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; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/10/175,608
; FILING DATE: 16-OCT-2002
; APPLICATION NUMBER: 09/635,249
; FILING DATE: 07-AUG-2000
; APPLICATION NUMBER: 09/486,546
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 10-APR-1991
; APPLICATION NUMBER: 09/589,701
; FILING DATE: 10-OCT-1991
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 49:
US-10-620-642-49

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Query Match          97.1%; Score 1030; DB 5; Length 273;
Best Local Similarity 99.5%; Pred. No. 9.2e-89;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY      1 MKKTQTWLTCTYQLLEPLNPLVKTGICRNVNNDVTKLVANLPKDYMITLKYPG 60
DB      1 MKKTQTWLTCTYQLLEPLNPLVKTGICRNVNNDVTKLVANLPKDYMITLKYPG 60

QY      61 MDVLPCHWISWVQVLSLTDLDDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
DB      61 MDVLPCHWISWVQVLSLTDLDDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120

QY      121 KDLKSFKSPPEPLTPPEFFRIFNRSIDAFKDFVVASSETDCVVSSTLSPEKDSRVST 180
DB      121 KDLKSFKSPPEPLTPPEFFRIFNRSIDAFKDFVVASSETDCVVSSTLSPEKDSRVST 180

QY      181 KPFMLPPVAASSLRNDSSSSNRK 203
DB      181 KPFMLPPVAASSLRNDSSSSNRK 203

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Search completed: February 22, 2006, 18:26:55
Job time : 84.0854 secs

GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: February 22, 2006, 18:22:17 ; Search time 8.02204 Seconds
(without alignments)
386.005 Million cell updates/sec

Title: US-10-620-642-46
Perfect score: 1061
Sequence: 1 MKKTWTWLTCTIYLLQFLFN.....AASSLRNDSSSSNKIYLI 208

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 117670 seqs, 14887254 residues

Total number of hits satisfying chosen parameters: 117670

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA New:
1: /cgn2_6/ptodata/2/pubpaa/US08 NEW PUB.pap.*
2: /cgn2_6/ptodata/2/pubpaa/US06 NEW PUB.pap.*
3: /cgn2_6/ptodata/2/pubpaa/US07 NEW PUB.pap.*
4: /cgn2_6/ptodata/2/pubpaa/PCT NEW PUB.pap.*
5: /cgn2_6/ptodata/2/pubpaa/US09 NEW PUB.pap.*
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7: /cgn2_6/ptodata/2/pubpaa/US11 NEW PUB.pap.*
8: /cgn2_6/ptodata/2/pubpaa/US60 NEW PUB.pap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1061	100.0	208	6	US-10-353-783-46
2	1030	97.1	273	6	US-10-353-783-48
3	1030	97.1	273	6	US-10-353-783-49
4	1030	97.1	273	6	US-10-353-783-61
5	1026	96.7	273	6	US-10-353-783-50
6	920	86.7	266	6	US-10-353-783-57
7	898	84.6	248	6	US-10-519-390-24
8	898	84.6	248	7	US-11-176-830-206
9	896	84.4	248	7	US-11-176-830-520
10	896	84.4	248	7	US-11-176-830-537
11	895	84.4	248	7	US-11-176-830-519
12	895	84.4	248	7	US-11-176-830-529
13	895	84.4	248	7	US-11-176-830-536
14	895	84.4	248	7	US-11-176-830-538
15	894	84.3	248	7	US-11-176-830-499
16	894	84.3	248	7	US-11-176-830-500
17	894	84.3	248	7	US-11-176-830-501
18	894	84.3	248	7	US-11-176-830-513
19	894	84.3	248	7	US-11-176-830-517
20	894	84.3	248	7	US-11-176-830-521
21	894	84.3	248	7	US-11-176-830-523
22	894	84.3	248	7	US-11-176-830-527
23	894	84.3	248	7	US-11-176-830-535
24	893	84.2	248	7	US-11-176-830-502
25	893	84.2	248	7	US-11-176-830-506

ALIGNMENTS

RESULT 1

US-10-353-783-46
; Sequence 46, Application US/10353783
; Publication No. US20050261175A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Krisztina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/353,783
; FILING DATE: 28-Jan-2003
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/448,729
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 10-APR-1991
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/32958A

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; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 46:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 208 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 46:
US-10-353-783-46

Query Match      100.0%; Score 1061; DB 6; Length 208;
Best Local Similarity 100.0%; Pred. No. 8.5e-89;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYQLQLLFPNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTIYQLQLLFPNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPCHWISWMVQVLSLTDLLDKFSNISEGLSNYSIIDKLNIIVDDLVKCVKENS 120
DB 61 MDVLPCHWISWMVQVLSLTDLLDKFSNISEGLSNYSIIDKLNIIVDDLVKCVKENS 120

QY 121 KDLKSFKSPPEPLTPTPEFFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVST 180
DB 121 KDLKSFKSPPEPLTPTPEFFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVST 180

QY 181 KPFMLPPVAASSLRNDSSSNKYIYL 208
DB 181 KPFMLPPVAASSLRNDSSSNKYIYL 208

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RESULT 2

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US-10-353-783-48
; Sequence 48, Application US/10353783
; Publication No. US20050261175A1
; GENERAL INFORMATION:
; APPLICANT: Zsebo, Krisztina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/353,783
; FILING DATE: 28-Jan-2003
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/448,729
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 10-APR-1991
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; APPLICATION NUMBER: 07/573,616

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; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/32958A
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 48:
US-10-353-783-48

Query Match      97.1%; Score 1030; DB 6; Length 273;
Best Local Similarity 99.5%; Pred. No. 7.5e-86;
Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYQLQLLFPNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTIYQLQLLFPNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPCHWISWMVQVLSLTDLLDKFSNISEGLSNYSIIDKLNIIVDDLVKCVKENS 120
DB 61 MDVLPCHWISWMVQVLSLTDLLDKFSNISEGLSNYSIIDKLNIIVDDLVKCVKENS 120

QY 121 KDLKSFKSPPEPLTPTPEFFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVST 180
DB 121 KDLKSFKSPPEPLTPTPEFFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVST 180

QY 181 KPFMLPPVAASSLRNDSSSNK 203
DB 181 KPFMLPPVAASSLRNDSSSNRK 203

RESULT 3
US-10-353-783-49
; Sequence 49, Application US/10353783
; Publication No. US20050261175A1
; GENERAL INFORMATION:
; APPLICANT: Zsebo, Krisztina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/353,783
; FILING DATE: 28-Jan-2003
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/448,729
; FILING DATE: 24-MAY-1995

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APPLICATION NUMBER: 08/172,329
FILING DATE: 21-DEC-1993
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/684,535
FILING DATE: 10-APR-1991
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/32958A
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: <Unknown>
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 49:
US-10-353-783-49

Query Match 97.1%; Score 1030; DB 6; Length 273;

Best Local Similarity 99.5%; Pred. No. 7.5e-86;

Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYQLLLFNPLVKTEGICRNVTNNVDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQTWLTCTIYQLLLFNPLVKTEGICRNVTNNVDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
Db 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
QY 121 KDLKSFSPPELFTPEFFRIFNRSIDAFKDFVVASETSCVVSSTLSPEKDSRVST 180
Db 121 KDLKSFSPPELFTPEFFRIFNRSIDAFKDFVVASETSCVVSSTLSPEKDSRVST 180
QY 181 KPFMLPPVAASSLRNDSNSSK 203
Db 181 KPFMLPPVAASSLRNDSNSSK 203

RESULT 4

US-10-353-783-61

; Sequence 61, Application US/10353783
; Publication No. US20050261175A1

; GENERAL INFORMATION:

; APPLICANT: Zeebo, Kristina M.
; Boeselman, Robert A.
; Suggs, Sidney V.

; TITLE OF INVENTION: Stem Cell Factor

; NUMBER OF SEQUENCES: 104

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago

; STATE: Illinois

; COUNTRY: United States of America

; ZIP: 60606-6402

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/353,783
FILING DATE: 28-Jan-2003
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/448,729
FILING DATE: 24-MAY-1995
APPLICATION NUMBER: 08/172,329
FILING DATE: 21-DEC-1993
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/684,535
FILING DATE: 10-APR-1991
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989

ATTORNEY/AGENT INFORMATION:

NAME: Clough, David W.

REGISTRATION NUMBER: 36,107

REFERENCE/DOCKET NUMBER: 01017/32958A

TELECOMMUNICATION INFORMATION:

TELEPHONE: 312/474-6300

TELEFAX: 312/474-0448

TELEX: <Unknown>

SEQUENCE CHARACTERISTICS:

LENGTH: 273 amino acids

TYPE: amino acid

TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 61:

US-10-353-783-61

Query Match 97.1%; Score 1030; DB 6; Length 273;

Best Local Similarity 99.5%; Pred. No. 7.5e-86;

Matches 202; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYQLLLFNPLVKTEGICRNVTNNVDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQTWLTCTIYQLLLFNPLVKTEGICRNVTNNVDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
Db 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
QY 121 KDLKSFSPPELFTPEFFRIFNRSIDAFKDFVVASETSCVVSSTLSPEKDSRVST 180
Db 121 KDLKSFSPPELFTPEFFRIFNRSIDAFKDFVVASETSCVVSSTLSPEKDSRVST 180
QY 181 KPFMLPPVAASSLRNDSNSSK 203
Db 181 KPFMLPPVAASSLRNDSNSSK 203

RESULT 5

US-10-353-783-50

; Sequence 50, Application US/10353783
; Publication No. US20050261175A1

; GENERAL INFORMATION:

; APPLICANT: Zeebo, Kristina M.

; Boeselman, Robert A.

; Suggs, Sidney V.

; TITLE OF INVENTION: Stem Cell Factor

; NUMBER OF SEQUENCES: 104

; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
 ; STREET: 6300 Sears Tower, 233 South Wacker Drive
 ; CITY: Chicago
 ; STATE: Illinois
 ; COUNTRY: United States of America
 ; ZIP: 60606-6402
 ;
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent In Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/10/353,783
 ; FILING DATE: 28-Jan-2003
 ; CLASSIFICATION: <Unknown>
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: 08/448,729
 ; FILING DATE: 24-MAY-1995
 ; APPLICATION NUMBER: 08/172,329
 ; FILING DATE: 21-DEC-1993
 ; APPLICATION NUMBER: 07/982,255
 ; FILING DATE: 25-NOV-1992
 ; APPLICATION NUMBER: 07/684,535
 ; FILING DATE: 10-APR-1991
 ; APPLICATION NUMBER: 07/589,701
 ; FILING DATE: 01-OCT-1990
 ; APPLICATION NUMBER: 07/573,616
 ; FILING DATE: 24-AUG-1990
 ; APPLICATION NUMBER: 07/537,198
 ; FILING DATE: 11-JUN-1990
 ; APPLICATION NUMBER: 07/422,383
 ; FILING DATE: 16-OCT-1989
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Clough, David W.
 ; REGISTRATION NUMBER: 36,107
 ; REFERENCE/DOCKET NUMBER: 01017/32958A
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 312/474-6300
 ; TELEFAX: 312/474-0448
 ; TELEX: <Unknown>
 ; INFORMATION FOR SEQ ID NO: 50:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 273 amino acids
 ; TYPE: amino acid
 ; STRANDEDNESS: single
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein
 ; SEQUENCE DESCRIPTION: SEQ ID NO: 50:
 ;
 ; US-10-353-783-50

Query Match 96.7%; Score 1026; DB 6; Length 273;
 Best Local Similarity 99.0%; Pred. No. 1.7e-85;
 Matches 201; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 ;
 QY 1 MKKTQTWLTCTIYQLLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYPG 60
 ;
 Db 1 MKKTQTWLTCTIYQLLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYPG 60
 ;
 QY 61 MDVLPSCWISWVQVLSLTDLLDKFNSISEGLSNYSIIIDKLVNIVDDLVCEVKENS 120
 ;
 Db 61 MDVLPSCWISWVQVLSLTDLLDKFNSISEGLSNYSIIIDKLVNIVDDLVCEVKENS 120
 ;
 QY 121 KDLKSFSPKPELPTPEFFRIFNRSIDAFKDFVVASSETSDCVVSSSTLSPEKDSRVSVT 180
 ;
 Db 121 KDLKSFSPKPELPTPEFFRIFNRSIDAFKDFVVASSETSDCVVSSSTLSPEKDSRVSVT 180
 ;
 QY 181 KPFMLPPVAASLRNDSSSNK 203
 ;
 Db 181 KPFMLPPVAASLRNDSSSNK 203

; US-10-353-783-57
 ; Sequence 57, Application US/10353783
 ; Publication No. US20050261175A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Zsebo, Kristina M.
 ; Bosselman, Robert A.
 ; Suggs, Sidney V.
 ; Martin, Francis H.
 ; TITLE OF INVENTION: Stem Cell Factor
 ; NUMBER OF SEQUENCES: 104
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
 ; STREET: 6300 Sears Tower, 233 South Wacker Drive
 ; CITY: Chicago
 ; STATE: Illinois
 ; COUNTRY: United States of America
 ; ZIP: 60606-6402
 ;
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent In Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/10/353,783
 ; FILING DATE: 28-Jan-2003
 ; CLASSIFICATION: <Unknown>
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: 08/448,729
 ; FILING DATE: 24-MAY-1995
 ; APPLICATION NUMBER: 08/172,329
 ; FILING DATE: 21-DEC-1993
 ; APPLICATION NUMBER: 07/982,255
 ; FILING DATE: 25-NOV-1992
 ; APPLICATION NUMBER: 07/684,535
 ; FILING DATE: 10-APR-1991
 ; APPLICATION NUMBER: 07/589,701
 ; FILING DATE: 01-OCT-1990
 ; APPLICATION NUMBER: 07/573,616
 ; FILING DATE: 24-AUG-1990
 ; APPLICATION NUMBER: 07/537,198
 ; FILING DATE: 11-JUN-1990
 ; APPLICATION NUMBER: 07/422,383
 ; FILING DATE: 16-OCT-1989
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Clough, David W.
 ; REGISTRATION NUMBER: 36,107
 ; REFERENCE/DOCKET NUMBER: 01017/32958A
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 312/474-6300
 ; TELEFAX: 312/474-0448
 ; TELEX: <Unknown>
 ; INFORMATION FOR SEQ ID NO: 57:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 266 amino acids
 ; TYPE: amino acid
 ; STRANDEDNESS: single
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein
 ; SEQUENCE DESCRIPTION: SEQ ID NO: 57:
 ;
 ; US-10-353-783-57

Query Match 86.7%; Score 920; DB 6; Length 266;
 Best Local Similarity 92.6%; Pred. No. 6e-76;
 Matches 188; Conservative 7; Mismatches 4; Indels 4; Gaps 4;
 ;
 QY 1 MKKTQTWLTCTIYQLLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYPG 60
 ;
 Db 1 MKKTQTWLTCTIYQLLLFNPLVKT-GICRNVTV-DVKDVTKLVANLPKDYMITLKYPG 58
 ;
 QY 61 MDVLPSCWISWVQVLSLTDLLDKFNSISEGLSNYSIIIDKLVNIVDDLVCEVKENS 120
 ;
 Db 59 MDVLPSCWISWVQVLSLTDLLDKFNSISEGLSNYSIIIDKLVNIVDDLVCE-EENSS 117

QY 121 KDLKSKSPKPEPRLFTPEEFRIFNRSIDAFKDFVVASETSDCVSSTLSPKDSRVSVT 180
Db 118 KNVKKS-KSPKPEPRLFTPEEFRIFNRSIDAFKDFVVASETSDCVSSTLSPKDSRVSVT 176
QY 181 KPFMLPPVAASLRNDSSSSNSK 203
Db 177 KPFMLPPVAASLRNDSSSSNRK 199

RESULT 7

US-10-519-390-24
; Sequence 24, Application US/10519390
; Publication No. US2006000872A1
; GENERAL INFORMATION:
; APPLICANT: MEDEXGEN Inc.
; APPLICANT: CHUNG, Yong-Hoon
; APPLICANT: LEE, Hak-sup
; APPLICANT: YI, Ki-Wan
; APPLICANT: KIM, Jae-Youn
; APPLICANT: HEO, Youn-Hwa
; TITLE OF INVENTION: A method of improving efficacy of biological response-modifying
; TITLE OF INVENTION: proteins and the example muteins
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/519,390
; CURRENT FILING DATE: 2004-12-23
; PRIOR APPLICATION NUMBER: KR10-2003-0051846
; PRIOR FILING DATE: 2003-07-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: KopatentIn 1.71
; SEQ ID NO 24
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: SCP: 63rd, 102nd, 110th, 115th, 116th, 119th, 126th, 129th,
; OTHER INFORMATION: 158th, 199th, 205th, 207th or 245th Phe is replaced by Val.
US-10-519-390-24

Query Match 84.6%; Score 898; DB 6; Length 248;
Best Local Similarity 99.4%; Pred. No. 5.3e-74;
Matches 177; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 26 EGICNRVTNNVKDVTKLVAANLPKDYMITLKYPGMDVLPSCWCISEMVVQLSDSLTDL 85
Db 1 EGICNRVTNNVKDVTKLVAANLPKDYMITLKYPGMDVLPSCWCISEMVVQLSDSLTDL 60
QY 86 DKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEFRIFN 145
Db 61 DKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEFRIFN 120
QY 146 RSIDAFKDFVVASETSDCVSSTLSPKDSRVSVTKPFMLPPVAASLRNDSSSSNSK 203
Db 121 RSIDAFKDFVVASETSDCVSSTLSPKDSRVSVTKPFMLPPVAASLRNDSSSSNRK 178

RESULT 8

US-11-176-830-206
; Sequence 206, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding Nu
; TITLE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21

; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 206
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: Genbank AAA85450
; DATABASE ENTRY DATE: 1996-01-19
US-11-176-830-206

Query Match 84.6%; Score 898; DB 7; Length 248;
Best Local Similarity 99.4%; Pred. No. 5.3e-74;
Matches 177; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 26 EGICNRVTNNVKDVTKLVAANLPKDYMITLKYPGMDVLPSCWCISEMVVQLSDSLTDL 85
Db 1 EGICNRVTNNVKDVTKLVAANLPKDYMITLKYPGMDVLPSCWCISEMVVQLSDSLTDL 60
QY 86 DKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEFRIFN 145
Db 61 DKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEFRIFN 120
QY 146 RSIDAFKDFVVASETSDCVSSTLSPKDSRVSVTKPFMLPPVAASLRNDSSSSNSK 203
Db 121 RSIDAFKDFVVASETSDCVSSTLSPKDSRVSVTKPFMLPPVAASLRNDSSSSNRK 178

RESULT 9

US-11-176-830-520
; Sequence 520, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; TITLE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 520
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-520

Query Match 84.4%; Score 896; DB 7; Length 248;
Best Local Similarity 98.9%; Pred. No. 9e-74;
Matches 176; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 26 EGICNRVTNNVKDVTKLVAANLPKDYMITLKYPGMDVLPSCWCISEMVVQLSDSLTDL 85
Db 1 EGICNRVTNNVKDVTKLVAANLPKDYMITLKYPGMDVLPSCWCISEMVVQLSDSLTDL 60
QY 86 DKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEFRIFN 145
Db 61 DKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEFRIFN 120
QY 146 RSIDAFKDFVVASETSDCVSSTLSPKDSRVSVTKPFMLPPVAASLRNDSSSSNSK 203
Db 121 RSIDAFKDFVVASETSDCVSSTLSPKDSRVSVTKPFMLPPVAASLRNDSSSSNRK 178

```
RESULT 10
US-11-176-830-537
; Sequence 537, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; TITLE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; PRIOR FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 537
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-537

Query Match      84.4%; Score 896; DB 7; Length 248;
Best Local Similarity 98.9%; Pred. No. 8e-74;
Matches 176; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY      26 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 85
Db      1 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 60

QY      86 DKFSNISSEGLSNYSIIDKLNVIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEPFRIFN 145
Db      61 DKFSNISSEGLSNYSIIDKLNVIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEPFRIFN 120

QY      146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNSK 203
Db      121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNSK 178

RESULT 11
US-11-176-830-519
; Sequence 519, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; TITLE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; PRIOR FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 519
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-519

Query Match      84.4%; Score 896; DB 7; Length 248;
Best Local Similarity 98.9%; Pred. No. 8e-74;
Matches 176; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY      26 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 85
Db      1 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 60

QY      86 DKFSNISSEGLSNYSIIDKLNVIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEPFRIFN 145
Db      61 DKFSNISSEGLSNYSIIDKLNVIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEPFRIFN 120

QY      146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNSK 203
Db      121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNSK 178
```

```
US-11-176-830-519

Query Match      84.4%; Score 895; DB 7; Length 248;
Best Local Similarity 98.9%; Pred. No. 9.9e-74;
Matches 176; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY      26 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 85
Db      1 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 60

QY      86 DKFSNISSEGLSNYSIIDKLNVIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEPFRIFN 145
Db      61 DKFSNISSEGLSNYSIIDKLNVIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEPFRIFN 120

QY      146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNSK 203
Db      121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNSK 178

RESULT 12
US-11-176-830-529
; Sequence 529, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; TITLE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 529
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-529

Query Match      84.4%; Score 895; DB 7; Length 248;
Best Local Similarity 98.9%; Pred. No. 9.9e-74;
Matches 176; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY      26 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 85
Db      1 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 60

QY      86 DKFSNISSEGLSNYSIIDKLNVIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEPFRIFN 145
Db      61 DKFSNISSEGLSNYSIIDKLNVIVDDLVECVKENSCKDLKSKSPKPEPRLFTPEEPFRIFN 120

QY      146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNSK 203
Db      121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNSK 178

RESULT 13
US-11-176-830-536
; Sequence 536, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
```



```
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding Nu
; FILE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 536
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-536

Query Match      84.4%; Score 895; DB 7; Length 248;
Best Local Similarity 98.9%; Pred. No. 9.9e-74;
Matches 176; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 26 EGICRNRVTNNVKDVTGLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 85
DB 1 EGICRNRVTNNVKDVTGLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 60

QY 86 DKFSNISSEGLSNYSIIDKLNVIVDDLVCECKENSSKDLKKSPKSPRLFTPEEPFRIFN 145
DB 61 DKFSNISSEGLSNYSIIDKLNVIVDDLVCECKENSSKDLKKSPKSPRLFTPEEPFRIFN 120

QY 146 RSIDAFKDFVWASSETSDCVVSTLSPEKDSRVSVTKPFMLPPVAASSLNDSSSSNRK 203
DB 121 RSIDAFKDFVWASSETSDCVVSTLSPEKDSRVSVTKPFMLPPVAASSLNDSSSSNRK 178

RESULT 14
US-11-176-830-538
; Sequence 538, Application US/11/176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Dittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding Nu
; FILE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 538
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-538

Query Match      84.4%; Score 895; DB 7; Length 248;
Best Local Similarity 98.9%; Pred. No. 9.9e-74;
Matches 176; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 26 EGICRNRVTNNVKDVTGLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 85
DB 1 EGICRNRVTNNVKDVTGLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 60

QY 86 DKFSNISSEGLSNYSIIDKLNVIVDDLVCECKENSSKDLKKSPKSPRLFTPEEPFRIFN 145
DB 61 DKFSNISSEGLSNYSIIDKLNVIVDDLVCECKENSSKDLKKSPKSPRLFTPEEPFRIFN 120

QY 146 RSIDAFKDFVWASSETSDCVVSTLSPEKDSRVSVTKPFMLPPVAASSLNDSSSSNRK 203
DB 121 RSIDAFKDFVWASSETSDCVVSTLSPEKDSRVSVTKPFMLPPVAASSLNDSSSSNRK 178
```

```
DB 61 DKFSNISSEGLSNYSIIDKLNVIVDDLVCECKENSSKDLKKSPKSPRLFTPEEPFRIFN 120
QY 146 RSIDAFKDFVWASSETSDCVVSTLSPEKDSRVSVTKPFMLPPVAASSLNDSSSSNRK 203
DB 121 RSIDAFKDFVWASSETSDCVVSTLSPEKDSRVSVTKPFMLPPVAASSLNDSSSSNRK 178

RESULT 15
US-11-176-830-499
; Sequence 499, Application US/11/176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Dittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; FILE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 499
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-499

Query Match      84.3%; Score 894; DB 7; Length 248;
Best Local Similarity 98.9%; Pred. No. 1.2e-73;
Matches 176; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 26 EGICRNRVTNNVKDVTGLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 85
DB 1 EGICRNRVTNNVKDVTGLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDLL 60

QY 86 DKFSNISSEGLSNYSIIDKLNVIVDDLVCECKENSSKDLKKSPKSPRLFTPEEPFRIFN 145
DB 61 DKFSNISSEGLSNYSIIDKLNVIVDDLVCECKENSSKDLKKSPKSPRLFTPEEPFRIFN 120

QY 146 RSIDAFKDFVWASSETSDCVVSTLSPEKDSRVSVTKPFMLPPVAASSLNDSSSSNRK 203
DB 121 RSIDAFKDFVWASSETSDCVVSTLSPEKDSRVSVTKPFMLPPVAASSLNDSSSSNRK 178

Search completed: February 22, 2006, 18:27:28
Job time : 9.02204 secs
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GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: February 22, 2006, 18:05:41 ; Search time 160.566 Seconds
(without alignments)
747.047 Million cell updates/sec

Title: US-10-620-642-61

Perfect score: 1397

Sequence: 1 MKKTWTWLTCTYQLLLFN.....NEEDNEISMLQKEREFEQEV 273

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

A_Geneseq_21:*

1: Geneseqp1980s:*

2: Geneseqp1990s:*

3: Geneseqp2000s:*

4: Geneseqp2001s:*

5: Geneseqp2002s:*

6: Geneseqp2003as:*

7: Geneseqp2003bs:*

8: Geneseqp2004s:*

9: Geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1397	100.0	273	2	AAR11711 Human Ste
2	1397	100.0	273	2	AAR20647 Human mas
3	1397	100.0	273	2	AAR83978 Human ste
4	1397	100.0	273	2	AAR27607 Human rec
5	1397	100.0	273	3	AAY53284 Human SCF
6	1397	100.0	273	4	AAB98367 Human SCF
7	1397	100.0	273	4	AAB98357 Human SCF
8	1397	100.0	273	4	AAB98357 Human SCF
9	1397	100.0	273	4	AAB96942 Human ste
10	1397	100.0	273	4	AAB96941 Human ste
11	1397	100.0	273	4	AAB96952 Human ste
12	1397	100.0	273	4	AAB73567 Human SCF
13	1397	100.0	273	4	AAB96942 Human ste
14	1397	100.0	273	4	AAB96942 Human ste
15	1397	100.0	273	5	AAB96942 Human ste
16	1397	100.0	273	5	AAB96942 Human ste
17	1397	100.0	273	7	ADRS2477 Human ste
18	1397	100.0	273	7	ADRS2489 Human ste
19	1397	100.0	273	7	ADRS2489 Human ste
20	1397	100.0	273	7	ADRS2489 Human ste
21	1397	100.0	273	8	ADP99331 Human ste
22	1397	100.0	273	8	ADP99331 Human ste
23	1397	100.0	273	8	ADU50649 Human ste
24	1397	100.0	273	9	ADW93094 Human Ste

ALIGNMENTS

RESULT 1

AAR11711

ID AAR11711 standard; protein; 273 AA.

XX AAR11711;

AC AAR11711;

XX 20-JUN-1991 (first entry)

XX Human Stem Cell Factor from HT1080 fibrosarcoma line.

DE Human Stem Cell Factor from HT1080 fibrosarcoma line.

XX Stem cell factor; SCF; leukopenia; AIDS; haematopoiesis.

XX Homo sapiens.

XX Key

FT Peptide

FT Protein

FT Protein

FT Protein

FT Protein

FT Protein

FT Protein

FT Protein

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FT Protein

CC stem cells such as neural stem cells and primordial germ stem cells. The
 CC product may be used in a pharmaceutical compen. for treating, in a
 CC mammal, leukopenia, thrombocytopenia, anaemia, AIDS, neoplasia, nerve
 CC damage, infertility and intestinal damage. See also AAR11708, AAQ11509-
 CC Q11543
 XX
 SQ Sequence 273 AA;
 Query Match 100.0%; Score 1397; DB 2; Length 273;
 Best Local Similarity 100.0%; Pred. No. 2.2e-133;
 Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
 DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
 QY 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
 DB 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
 QY 121 KDLKSKFSKSPPELFTPEEFRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
 DB 121 KDLKSKFSKSPPELFTPEEFRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
 QY 181 KPFLMPPVAASLRNDSSSNRKAKNPPGDSLHWAAMALPALFSLIIGFAFGALYWKCR 240
 DB 181 KPFLMPPVAASLRNDSSSNRKAKNPPGDSLHWAAMALPALFSLIIGFAFGALYWKCR 240
 QY 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273
 DB 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273
 RESULT 2
 AAR20647
 ID AAR20647 standard; protein; 273 AA.
 XX
 AC AAR20647;
 XX
 DT 25-MAR-2003 (revised)
 DT 30-APR-1992 (first entry)
 XX
 DE Human mast cell growth factor.
 XX
 KW hMGF-2.4; hematopoietin; interleukin; IL-3; c-kit oncogene;
 KW proliferation.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Peptide 1..25
 FT /label= signal
 FT Region 26..210
 FT /label= extracellular
 FT /note= "claimed polypeptide"
 FT 211..237
 FT /label= transmembrane
 FT 238..273
 FT /label= intracellular
 XX
 PN W09200376-A.
 XX
 XX
 PD 09-JAN-1992.
 XX
 XX 25-JUN-1990; 90US-00543264.
 XX
 PR 25-JUN-1990; 90US-00543264.
 PR 10-AUG-1990; 90US-00585840.
 PR 28-AUG-1990; 90US-00574152.
 PR 21-SEP-1990; 90US-00586073.
 PR 12-JUN-1991; 91US-00713715.
 XX
 PA (IMMV) IMMUNEX CORP.

XX Williams DE, Lyman S;
 XX WPI; 1992-041558/05.
 DR N-PSDB; AAQ20845.
 XX
 PT New isolated DNA encoding human mast cell growth factor - useful in
 PT stimulating proliferation of haematopoietic cells with growth factor, to
 PT treat haemolytic and hypoproliferative anaemias.
 XX
 PS Claim 10; Fig 4; 59pp; English.
 XX
 CC This human MGF has a mature extracellular region of 185 amino acids.
 CC There is a second form of hMGF (see AAQ20844) resulting from an
 CC alternative mRNA splicing event which deletes an exon encoding an
 CC additional 28 amino acids beginning at amino acid 148 of the mature
 CC protein. MGF is the ligand for the protein receptor expression product of
 CC the c-kit proto-oncogene. MGF can be used to augment the activity of
 CC other cytokines. It can influence early lymphoid or myeloid development.
 CC See also AAQ20842-3 and AAQ22204-7. (Updated on 25-MAR-2003 to correct PA
 CC field.)
 XX
 SQ Sequence 273 AA;
 Query Match 100.0%; Score 1397; DB 2; Length 273;
 Best Local Similarity 100.0%; Pred. No. 2.2e-133;
 Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
 DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
 QY 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
 DB 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
 QY 121 KDLKSKFSKSPPELFTPEEFRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
 DB 121 KDLKSKFSKSPPELFTPEEFRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
 QY 181 KPFLMPPVAASLRNDSSSNRKAKNPPGDSLHWAAMALPALFSLIIGFAFGALYWKCR 240
 DB 181 KPFLMPPVAASLRNDSSSNRKAKNPPGDSLHWAAMALPALFSLIIGFAFGALYWKCR 240
 QY 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273
 DB 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273
 RESULT 3
 AAR83978
 ID AAR83978 standard; protein; 273 AA.
 XX
 AC AAR83978;
 XX
 DT 25-MAR-2003 (revised)
 DT 15-MAY-1996 (first entry)
 XX
 DE Human stem cell factor derived from HT1080 fibrosarcoma cell line.
 XX
 KW Stem cell factor; progenitor; haematopoiesis; SCF; anaemia;
 KW thrombocytopenia; leucopenia; AIDS; immunodeficiency; bone graft;
 KW transplant; neoplasia; myelosuppression; bone marrow; ss.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Peptide 1..25
 FT /label= sig_peptide
 FT Protein 26..248
 FT /label= mat_SCF
 XX
 PN EP676470-A1.

XX PD 11-OCT-1995.
 XX PF 04-OCT-1990; 95EP-00105391.
 XX PR 16-OCT-1989; 89US-00422383.
 XX PR 11-JUN-1990; 90US-00537198.
 XX PR 24-AUG-1990; 90US-00573616.
 XX PR 28-SEP-1990; 90WO-US005548.
 XX PR 01-OCT-1990; 90US-00589701.
 XX PA (AMGE-) AMGEN INC.
 XX PI Zsebo KM, Suggs SV, Bosselman RA, Martin FH;
 XX DR WPI; 1995-346090/45.
 XX DR N-PSDB; AAT04890.
 XX PT New stem cell factor polypeptide(s) - for stimulating the growth of
 XX PT primitive progenitor cells, esp. for treating disorders involving blood
 XX PT cells.
 XX PS Claim 9; Fig 42; 127pp; English.
 XX PR AAR3978 is a human stem cell factor (SCF) derived from the HT1080
 CC fibrosarcoma cell line. Non-naturally occurring SCF and C-terminally
 CC truncated polypeptides, having amino acid sequences sufficiently
 CC duplicative of naturally occurring SCF, stimulate growth of primitive
 CC progenitors such as haematopoietic progenitor cells, neural stem cells
 CC and primordial germ stem cells. The peptides can be used in a composition
 CC for treating leucopenia, anaemia or thrombocytopenia, for enhancing
 CC engraftment of bone marrow during transplantation or for bone marrow
 CC recovery after chemotherapy or radiation-induced bone marrow aplasia or
 CC myelosuppression. They can also be used for treating neoplasia, nerve
 CC damage, infertility, intestinal damage or myeloproliferative disorders.
 CC Antibodies may be raised against the peptides for use in detection or
 CC neutralisation of SCF in serum. SCF may be useful for the treatment of
 CC AIDS and severe combined immunodeficiency (SCID) states alone or in
 CC combination with other factors such as IL-7. (Updated on 25-MAR-2003 to
 CC correct PP field.)
 XX SQ Sequence 273 AA;
 Query Match 100.0%; Score 1397; DB 2; Length 273;
 Best Local Similarity 100.0%; Pred. No. 2.2e-133;
 Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
 DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
 QY 61 MDVLPSCWISSEMVVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIYDDLVECVKENS 120
 DB 61 MDVLPSCWISSEMVVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIYDDLVECVKENS 120
 QY 121 KDLKSKFSKSPERLFTPEEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPKDSRVSVT 180
 DB 121 KDLKSKFSKSPERLFTPEEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPKDSRVSVT 180
 QY 181 KPFMLPPVAASLRNDSSSSNRKAKNPDCGSSHLHWAAMALPALFSLIIGFAGALYWKCR 240
 DB 181 KPFMLPPVAASLRNDSSSSNRKAKNPDCGSSHLHWAAMALPALFSLIIGFAGALYWKCR 240
 QY 241 QPSLTRAVENTIINEDNEISMLOKEREFOEV 273
 DB 241 QPSLTRAVENTIINEDNEISMLOKEREFOEV 273
 RESULT 4
 ID AAW27607 standard; protein; 273 AA.
 XX
 AC AAW27607;

XX DT 28-APR-1998 (first entry)
 XX DE Human recombinant stem cell factor protein.
 XX KW Stem cell factor; SCF; mast cell growth factor; MCGF; Steel factor; SF;
 KW SIF; analogue; treatment; haematopoietic factor; progenitor cell;
 KW pigmentation disorder; haematopoietic disorder.
 XX OS Homo sapiens.
 XX FH Key Location/Qualifiers
 FT Peptide 1..25
 FT Protein /label= leader sequence
 FT 26..274
 FT /note= "mature full length stem cell factor protein"
 XX W09738101-A1.
 XX PD 16-OCT-1997.
 XX PF 03-APR-1997; 97WO-US005541.
 XX PR 05-APR-1996; 96US-00628428.
 XX PA (AMGE-) AMGEN INC.
 XX PI Lu HS;
 XX DR WPI; 1997-512718/47.
 XX PT Stem cell factor analogue N10D or N10D/N11D - useful to treat
 XX PT pigmentation disorder, AIDS, nerve damage, infertility, intestinal damage
 XX PT or haematopoietic disorder.
 XX PS Claim 2; Fig 1; 42pp; English.
 CC This sequence represents a membrane bound form of a human recombinant
 CC stem cell factor (SCF). Stem cell factors are also known as mast cell
 CC growth factors (MCGF) or Steel factors (SF or SLP) are haematopoietic
 CC factors which act on haematopoietic progenitor cells. Analogues of a wild
 CC type SCF sequence have been constructed (see AAW27605 and AAW27606) which
 CC have increased biological activity and stability compared to unmodified
 CC SCF and can be used to treat pigmentation disorders, e.g. vitiligo, acquired
 CC immunodeficiency syndrome, nerve damage, infertility, intestinal damage
 CC or a haematopoietic disorder, e.g. leucopenia, thrombocytopenia or
 CC anaemia, enhance bone marrow engraftment during transplantation or bone
 CC marrow recovery following radiation, chemical or chemotherapeutic,
 CC induced bone marrow aplasia or myelosuppression, sensitise cells to
 CC chemotherapy or mobilise peripheral blood progenitor cells. It can also
 CC be used in an in vitro haematopoietic cell, preferably bone marrow or
 CC peripheral blood progenitor cell, culture medium, where the cells are
 CC optionally subsequently transfected with exogenous DNA
 XX SQ Sequence 273 AA;
 Query Match 100.0%; Score 1397; DB 2; Length 273;
 Best Local Similarity 100.0%; Pred. No. 2.2e-133;
 Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
 DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
 QY 61 MDVLPSCWISSEMVVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIYDDLVECVKENS 120
 DB 61 MDVLPSCWISSEMVVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIYDDLVECVKENS 120
 QY 121 KDLKSKFSKSPERLFTPEEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPKDSRVSVT 180
 DB 121 KDLKSKFSKSPERLFTPEEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPKDSRVSVT 180
 QY 181 KPFMLPPVAASLRNDSSSSNRKAKNPDCGSSHLHWAAMALPALFSLIIGFAGALYWKCR 240

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|||||
181 KPFMLPPVAASLRNDSSNRKAKNPPQDSSLHWAAMALPALFSLIIGFAFGALYWKCR 240
QY 241 QPSLTRAVENTIQUINEDNEISMLOKEREFOEV 273
Db |||||||
241 QPSLTRAVENTIQUINEDNEISMLOKEREFOEV 273

RESULT 5
AAV53284
ID AAV53284 standard; protein; 273 AA.
XX
AC AAV53284;
XX
DT 27-JUL-2000 (first entry)
XX
DE Human SCF protein isolated from the HT1080 fibrosarcoma cell line.
XX
KW Stem cell factor; SCF; haematopoietic progenitor cell; blood forming;
KW primitive progenitor cell; haematopoietic disorder; syngeneic;
KW allogeneic; autologous bone marrow transplant; gene therapy;
KW transfection; haematopoietic stem cell; acute blood loss; neoplasia;
KW cancer.
XX
OS Homo sapiens.
XX
PN EP992579-A1.
XX
PD 12-APR-2000.
XX
PF 04-OCT-1990; 99EP-00122861.
XX
PR 16-OCT-1989; 89US-00422383.
PR 11-JUN-1990; 90US-00537198.
PR 24-AUG-1990; 90US-00573616.
PR 28-SEP-1990; 90WO-US005548.
PR 01-OCT-1990; 90US-00589701.
PR 04-OCT-1990; 90EP-00310899.
XX
PA (AMGE-) AMGEN INC.
XX
PI Zsebo KM, Suggs SV, Bosselmann RA, Martin FH;
XX
WPI; 2000-259135/23.
DR N-PSDB; AAA13714.
XX
PT Production of hematopoietic cells suitable for administration to a
PT subject using progenitor cells and expanding the cells using stem cell
PT factor.
XX
PS Claim 22; Fig 42; 123pp; English.
XX
CC A method has been developed of making haematopoietic cells suitable for
CC administration to a subject. The method comprises: (a) obtaining
CC haematopoietic progenitor cells from a donor; and (b) expanding the cells
CC by adding to the cells a haematopoietically effective dose of a
CC polypeptide product having at least part of the primary structural
CC confirmation and one or more of the biological properties of naturally
CC occurring stem cell factor (SCF). The method is useful for stimulating
CC primitive progenitor cells including early haematopoietic progenitor
CC cells which are capable of maturing to erythroid, megakaryocyte
CC granulocyte, lymphocyte and macrophage cells. SCF results in absolute
CC increases in haematopoietic cells of both myeloid and lymphoid lineages.
CC SCF is useful for treating haematopoietic disorders. The method is useful
CC for expanding early haematopoietic progenitors in syngeneic, allogeneic
CC or autologous bone marrow transplant. SCF is useful for enhancing the
CC efficiency of gene therapy based on transfecting haematopoietic stem
CC cells. SCF is also useful for combating the myelosuppressive effects of
CC anti-HIV drugs such as AZT and for enhancing haematopoietic recovery
CC after acute blood loss and as a boost to the immune system for fighting
CC neoplasia (cancer). The present sequence represents a specifically
CC claimed human SCF from the present invention
XX

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SQ Sequence 273 AA;
Query Match 100.0%; Score 1397; DB 3; Length 273;
Best Local Similarity 100.0%; Pred. No. 2.2e-133;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTIYLQLLLFNPLVKTEGICRNRVTNNVNDVTKLVANLPKDYMITLKYVPG 60
Db |||||||
1 MKKTQTWLTCTIYLQLLLFNPLVKTEGICRNRVTNNVNDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLLDKFSNISSEGLSNYSIIDKLVNIVDDLVCECKENSS 120
Db |||||||
61 MDVLPSCWISSEMVVQLSDSLTDLLDKFSNISSEGLSNYSIIDKLVNIVDDLVCECKENSS 120
QY 121 KDLKSKFSKPEPRLTPEEFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVST 180
Db |||||||
121 KDLKSKFSKPEPRLTPEEFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVST 180
QY 181 KPFMLPPVAASLRNDSSNRKAKNPPQDSSLHWAAMALPALFSLIIGFAFGALYWKCR 240
Db |||||||
181 KPFMLPPVAASLRNDSSNRKAKNPPQDSSLHWAAMALPALFSLIIGFAFGALYWKCR 240
QY 241 QPSLTRAVENTIQUINEDNEISMLOKEREFOEV 273
Db |||||||
241 QPSLTRAVENTIQUINEDNEISMLOKEREFOEV 273

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RESULT 6
AAB98367
ID AAB98367 standard; protein; 273 AA.
XX
AC AAB98367;
XX
DT 21-AUG-2001 (first entry)
XX
DE Human SCF protein sequence SEQ ID NO:61.
XX
KW Stem cell factor; SCF; stem cell factor receptor; blood cell disorder;
KW gene therapy.
XX
OS Homo sapiens.
XX
PN US6207454-B1.
XX
PD 27-MAR-2001.
XX
PF 31-DEC-1998; 98US-00224681.
XX
PR 16-OCT-1989; 89US-00422383.
PR 11-JUN-1990; 90US-00537198.
PR 24-AUG-1990; 90US-00573616.
PR 01-OCT-1990; 90US-00589701.
PR 25-NOV-1992; 92US-00982255.
PR 21-DEC-1993; 93US-00172329.
PR 24-MAY-1995; 95US-00449653.
PR 12-JAN-1998; 98US-00005893.
XX
PA (AMGE-) AMGEN INC.
XX
PI Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
XX
WPI; 2001-366062/38.
DR N-PSDB; AAA41344.
XX
CC Enhancing efficiency of transfer of polynucleotide into a target
CC mammalian cell in vitro, involves exposing cell that expresses a stem
CC cell factor receptor to stem cell factor, and introducing polynucleotide
CC into cell in vitro.
XX
Claim 17; Fig 42; 210pp; English.
XX
The present invention describes a method for enhancing (E) the efficiency
CC of transfer of a polynucleotide (I) into a target mammalian cell (II) in

```

CC vitro, comprising exposing (II) that expresses a stem cell factor (SCF)
 CC receptor to a biologically active SCF, its analogue or fragment, which
 CC induces cell proliferation, and introducing (I) to (II) in vitro.
 CC Exposure of SCF to (II) results in increased uptake of (I) into the cell.
 CC The method is useful for enhancing the efficiency of the transfer of a
 CC polynucleotide into a target mammalian cell in vitro. The method is
 CC useful in gene therapy techniques. AAH41301 to AAH41364 and AAB98351 to
 CC AAB98390 represent sequences used in the exemplification of the present
 CC invention
 XX Sequence 273 AA;

Query Match 100.0%; Score 1397; DB 4; Length 273;
 Best Local Similarity 100.0%; Pred. No. 2.2e-133;
 Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNKDVTKLVANLPKDYMITLKYVPG 60
 Db 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNKDVTKLVANLPKDYMITLKYVPG 60
 QY 61 MDVLPCHWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDIVECVKENS 120
 Db 61 MDVLPCHWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDIVECVKENS 120
 QY 121 KDLKSKFSKSPRLFTPEEFPRIFNRSIDAFKDFVVASETSDCVVSTLSPKDSRVST 180
 Db 121 KDLKSKFSKSPRLFTPEEFPRIFNRSIDAFKDFVVASETSDCVVSTLSPKDSRVST 180
 QY 181 KPFMLPPVAASLRNDSSSNKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240
 Db 181 KPFMLPPVAASLRNDSSSNKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240
 QY 241 QPSLTRAVENTIQINEEDNEISMLOKEREFEV 273
 Db 241 QPSLTRAVENTIQINEEDNEISMLOKEREFEV 273

RESULT 7
 AAB98357
 ID AAB98357 standard; protein; 273 AA.
 AC AAB98357;
 XX
 XX 21-AUG-2001 (first entry)
 XX Human SCF protein SEQ ID NO:49.
 XX Stem cell factor; SCF; stem cell factor receptor; blood cell disorder;
 KW gene therapy.
 XX Homo sapiens.
 XX US6207454-B1.
 XX 27-MAR-2001.
 XX 31-DEC-1998; 98US-00224681.
 XX 16-OCT-1989; 89US-00422383.
 XX 11-JUN-1990; 90US-00537198.
 XX 24-AUG-1990; 90US-00573616.
 XX 01-OCT-1990; 90US-00589701.
 XX 25-NOV-1992; 92US-00982255.
 XX 21-DEC-1993; 93US-00172329.
 XX 24-MAY-1995; 95US-00496653.
 XX 12-JAN-1998; 98US-00005893.
 XX (AMGE-) AMGEN INC.
 XX Zsebo KM, Bosselman RA, Suggs SV, Martin PH;
 XX WPI; 2001-366062/38.
 XX

PT Enhancing efficiency of transfer of polynucleotide into a target
 PT mammalian cell in vitro, involves exposing cell that expresses a stem
 PT cell factor receptor to stem cell factor, and introducing polynucleotide
 XX into cell in vitro.
 XX Example 3; Fig 16; 210pp; English.
 PS
 XX The present invention describes a method for enhancing (E) the efficiency
 CC of transfer of a polynucleotide (I) into a target mammalian cell (II) in
 CC vitro, comprising exposing (II) that expresses a stem cell factor (SCF)
 CC receptor to a biologically active SCF, its analogue or fragment, which
 CC induces cell proliferation, and introducing (I) to (II) in vitro.
 CC Exposure of SCF to (II) results in increased uptake of (I) into the cell.
 CC The method is useful for enhancing the efficiency of the transfer of a
 CC polynucleotide into a target mammalian cell in vitro. The method is
 CC useful in gene therapy techniques. AAH41301 to AAH41364 and AAB98351 to
 CC AAB98390 represent sequences used in the exemplification of the present
 CC invention
 XX Sequence 273 AA;

Query Match 100.0%; Score 1397; DB 4; Length 273;
 Best Local Similarity 100.0%; Pred. No. 2.2e-133;
 Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNKDVTKLVANLPKDYMITLKYVPG 60
 Db 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNKDVTKLVANLPKDYMITLKYVPG 60
 QY 61 MDVLPCHWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDIVECVKENS 120
 Db 61 MDVLPCHWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDIVECVKENS 120
 QY 121 KDLKSKFSKSPRLFTPEEFPRIFNRSIDAFKDFVVASETSDCVVSTLSPKDSRVST 180
 Db 121 KDLKSKFSKSPRLFTPEEFPRIFNRSIDAFKDFVVASETSDCVVSTLSPKDSRVST 180
 QY 181 KPFMLPPVAASLRNDSSSNKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240
 Db 181 KPFMLPPVAASLRNDSSSNKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240
 QY 241 QPSLTRAVENTIQINEEDNEISMLOKEREFEV 273
 Db 241 QPSLTRAVENTIQINEEDNEISMLOKEREFEV 273

RESULT 8
 AAU02460
 ID AAU02460 standard; protein; 273 AA.
 XX AAU02460;
 XX 29-AUG-2001 (first entry)
 XX Human SCF protein isolated from the HT1080 fibrosarcoma cell line.
 XX Human; stem cell factor; SCF; early haematopoietic progenitor cell;
 KW blood disorder; leukaemia; Hodgkin's disease; lymphoma; splenomegaly;
 KW anaemia; Kala azar; septicemia; malaria; hypopigmentation disorder;
 KW HT1080 fibrosarcoma.
 XX Homo sapiens.
 XX Key Location/Qualifiers
 FT Protein 1..25
 FT /label= Signal_peptide
 FT 26..273
 FT /label= Mature_SCF
 XX US6207417-B1.
 XX 27-MAR-2001.
 XX

PF 07-JUN-1995; 95US-00482918.
 XX 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.
 PR 24-AUG-1990; 90US-00573616.
 PR 01-OCT-1990; 90US-00589701.
 PR 21-DEC-1993; 93US-00172329.
 XX (ZSEB/) ZSEBO K M.
 PA (BOSS/) BOSSELMAN R A.
 PA (SUGG/) SUGGS S V.
 PA (MART/) MARTIN F H.
 XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
 PI WPI; 2001-298941/31.
 DR N-PSDB; AAS04124.
 XX Novel nucleic acids encoding stem cell factor useful for treating
 PT disorders involving blood cells, e.g. leukemia, splenomegaly, Hodgkin's
 PT disease, Kala azar, anemia and septicemia.
 XX Example 5; Fig 42A-42C; 209pp; English.
 PS The present sequence representing human SCF (stem cell factor) protein is
 CC isolated from the HT1080 fibrosarcoma cell line. The present invention
 CC relates to novel stem cell factors (AAU02453-AAU02458, AAU02461) and the
 CC polynucleotides encoding them. SCF stimulate primitive progenitor cells
 CC including early haematopoietic progenitor cells. The invention also
 CC describes SCF peptides (AAU02462-AAU02481) and the oligonucleotides
 CC (AAS04081-AAS04117) used in the isolation of human and rat SCF sequences.
 CC The polynucleotide encoding SCF is useful for producing SCF and useful in
 CC gene therapy. It is useful for treating disorders involving blood cells
 CC such as myelofibrosis, metastatic carcinoma, acute leukaemia, multiple
 CC myeloma, Hodgkin's disease, lymphoma, Gaucher's disease, anaemia,
 CC congestive splenomegaly, Kala azar, sarcoidosis, military tuberculosis,
 CC disseminated fungus disease, Fulminating septicemia, malaria, vitamin B12
 CC and folic acid deficiency, pyridoxine deficiency, and hypopigmentation
 CC disorders such as piebaldism and vitiligo
 XX Sequence 273 AA;
 SQ
 Query Match 100.0%; Score 1397; DB 4; Length 273;
 Best Local Similarity 100.0%; Pred. No. 2.2e-133;
 Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTTWLTCTIYQLLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYPG 60
 DB 1 MKKTTWLTCTIYQLLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYPG 60
 QY 61 MDVLPCHWISWVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIVDDLVCEKENS 120
 DB 61 MDVLPCHWISWVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIVDDLVCEKENS 120
 QY 121 KDLKSKSPKPEPLTPTPEFFRINRSIDAFKDFVVASSETSCVVSSTLSPEKDSRVST 180
 DB 121 KDLKSKSPKPEPLTPTPEFFRINRSIDAFKDFVVASSETSCVVSSTLSPEKDSRVST 180
 QY 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
 DB 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
 QY 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273
 DB 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273
 RESULT 9
 AAB96942
 ID AAB96942 standard; protein; 273 AA.
 XX
 AC AAB96942;
 XX

DT 13-JUL-2001 (first entry)
 XX Human stem cell factor SEQ ID NO: 49.
 XX Human; rat; mammal; stem cell factor; SCF; cell growth stimulation;
 KW gene therapy; haematopoietic disorder; aplastic anaemia; leukaemia;
 KW neurological damage; intestinal damage; infertility; AIDS; SCID;
 KW severe combined immunodeficiency.
 XX Homo sapiens.
 OS US6207802-B1.
 FN 27-MAR-2001.
 PD 09-NOV-1994; 94US-00336728.
 PF 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.
 PR 24-AUG-1990; 90US-00573616.
 PR 01-OCT-1990; 90US-00589701.
 PR 25-NOV-1992; 92US-00982255.
 XX (AMGE-) AMGEN INC.
 PA Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
 PI WPI; 2001-353108/37.
 DR Novel isolated non-human mammalian stem cell factor polypeptide
 PT stimulating growth of early hematopoietic progenitor cells, useful for
 PT treating aplastic anemia, lymphoma, Letterer-Siwe disease, Kala azar,
 PT sarcoidosis.
 XX Example 3; Fig 16; 209pp; English.
 XX The present invention provides the protein and coding sequences of
 CC mammalian stem cell factors (SCFs). These are capable of stimulating the
 CC growth of early haematopoietic progenitor cells, neural stem cells and
 CC primordial germ stem cells. The sequences are useful in the treatment of
 CC leukaemias, haematopoietic disorders, aplastic anaemia, paroxysmal
 CC nocturnal haemoglobinuria, malaria, pigmentation disorders, neurological
 CC and intestinal damage, infertility, AIDS and severe combined
 CC immunodeficiency (SCID). The present sequence is an SCF described in the
 CC invention
 XX Sequence 273 AA;
 SQ
 Query Match 100.0%; Score 1397; DB 4; Length 273;
 Best Local Similarity 100.0%; Pred. No. 2.2e-133;
 Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTTWLTCTIYQLLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYPG 60
 DB 1 MKKTTWLTCTIYQLLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYPG 60
 QY 61 MDVLPCHWISWVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIVDDLVCEKENS 120
 DB 61 MDVLPCHWISWVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIVDDLVCEKENS 120
 QY 121 KDLKSKSPKPEPLTPTPEFFRINRSIDAFKDFVVASSETSCVVSSTLSPEKDSRVST 180
 DB 121 KDLKSKSPKPEPLTPTPEFFRINRSIDAFKDFVVASSETSCVVSSTLSPEKDSRVST 180
 QY 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
 DB 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
 QY 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273
 DB 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273


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RESULT 10
AAB96941
ID AAB96941 standard; protein; 273 AA.
XX
AC AAB96941;
XX
DT 13-JUL-2001 (first entry)
XX
DE Human stem cell factor SEQ ID NO: 48.
XX
KW Human; rat; mammal; stem cell factor; SCF; cell growth stimulation;
KW gene therapy; haematopoietic disorder; aplastic anaemia; leukaemia;
KW neurological damage; intestinal damage; infertility; AIDS; SCID;
KW severe combined immunodeficiency.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1..25
FT Protein /label= signal_peptide
FT 26..273
FT /label= mature_stem_cell_factor
XX
US6207802-B1.
XX
PD 27-MAR-2001.
XX
PF 09-NOV-1994; 94US-00336728.
XX
PR 16-OCT-1989; 89US-00422383.
XX
PR 11-JUN-1990; 90US-00537198.
XX
PR 24-AUG-1990; 90US-00573616.
XX
PR 01-OCT-1990; 90US-00589701.
XX
PR 25-NOV-1992; 92US-00982255.
XX
PA (AMGE-) AMGEN INC.
XX
PI Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
XX
WPI: 2001-353108/37.
XX
N-PSDB; AAF89102.
XX
Novel isolated non-human mammalian stem cell factor polypeptide
stimulating growth of early hematopoietic progenitor cells, useful for
treating aplastic anemia, lymphoma, Letterer-Siwe disease, Kala azar,
sarcoidosis.
XX
PS Disclosure; Fig 15D; 209pp; English.
XX
The present invention provides the protein and coding sequences of
mammalian stem cell factors (SCFs). These are capable of stimulating the
growth of early haematopoietic progenitor cells, neural stem cells and
primordial germ stem cells. The sequences are useful in the treatment of
leukaemias, haematopoietic disorders, aplastic anaemia, paroxysmal
nocturnal haemoglobinuria, malaria, pigmentation disorders, neurological
and intestinal damage, infertility, AIDS and severe combined
immunodeficiency (SCID). The present sequence is an SCF described in the
invention
XX
Sequence 273 AA;
Query Match 100.0%; Score 1397; DB 4; Length 273;
Best Local Similarity 100.0%; Pred. No. 2.2e-133;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWILTCIYQLLLFNPVKTEGICRNRTNNVNDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWILTCIYQLLLFNPVKTEGICRNRTNNVNDVTKLVANLPKDYMITLKYPVG 60
QY 61 MDVLPSCWISWVQVLSLTDLDKFSNISEGLSNYSIIDKLVNVDLDLVECVKENS 120
DB 61 MDVLPSCWISWVQVLSLTDLDKFSNISEGLSNYSIIDKLVNVDLDLVECVKENS 120
QY 121 KDLKSKFKSPPEPRLFTPEFFFRNRSIDAFKDFVVASETSCVVSSTLSPKDSRVSVT 180
DB 121 KDLKSKFKSPPEPRLFTPEFFFRNRSIDAFKDFVVASETSCVVSSTLSPKDSRVSVT 180
QY 181 KPEMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKKR 240
DB 181 KPEMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKKR 240
QY 241 QPSLTRAVENTIQINEEDNEISMLQEKEREFQEV 273
DB 241 QPSLTRAVENTIQINEEDNEISMLQEKEREFQEV 273
XX
AAB96952
ID AAB96952 standard; protein; 273 AA.
XX
AC AAB96952;
XX
DT 13-JUL-2001 (first entry)
XX
DE Human stem cell factor SEQ ID NO: 61.
XX
KW Human; rat; mammal; stem cell factor; SCF; cell growth stimulation;
KW gene therapy; haematopoietic disorder; aplastic anaemia; leukaemia;
KW neurological damage; intestinal damage; infertility; AIDS; SCID;
KW severe combined immunodeficiency.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1..25
FT Protein /label= signal_peptide
FT 26..273
FT /label= mature_stem_cell_factor
XX
US6207802-B1.
XX
PD 27-MAR-2001.
XX
PF 09-NOV-1994; 94US-00336728.
XX
PR 16-OCT-1989; 89US-00422383.
XX
PR 11-JUN-1990; 90US-00537198.
XX
PR 24-AUG-1990; 90US-00573616.
XX
PR 01-OCT-1990; 90US-00589701.
XX
PR 25-NOV-1992; 92US-00982255.
XX
PA (AMGE-) AMGEN INC.
XX
PI Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
XX
WPI: 2001-353108/37.
XX
N-PSDB; AAF89104.
XX
Novel isolated non-human mammalian stem cell factor polypeptide
stimulating growth of early hematopoietic progenitor cells, useful for
treating aplastic anemia, lymphoma, Letterer-Siwe disease, Kala azar,
sarcoidosis.
XX
PS Example 3; Fig 42; 209pp; English.
XX
The present invention provides the protein and coding sequences of
mammalian stem cell factors (SCFs). These are capable of stimulating the
growth of early haematopoietic progenitor cells, neural stem cells and
primordial germ stem cells. The sequences are useful in the treatment of
leukaemias, haematopoietic disorders, aplastic anaemia, paroxysmal
nocturnal haemoglobinuria, malaria, pigmentation disorders, neurological
and intestinal damage, infertility, AIDS and severe combined
immunodeficiency (SCID). The present sequence is an SCF described in the
invention
XX
Sequence 273 AA;

```

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Query Match      100.0%; Score 1397; DB 4; Length 273;
Best Local Similarity 100.0%; Pred. No. 2.2e-133; Indels 0; Gaps 0;
Matches 273; Conservative 0; Mismatches 0;

QY 1 MKKTQTWLTTCIYLQLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTTCIYLQLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISSEMVVQLSDSLTDLDFKPSNISSEGLSNYSIIDKLVNIIVDDLVKVCENSS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLDFKPSNISSEGLSNYSIIDKLVNIIVDDLVKVCENSS 120

QY 121 KDLKSKSPKSPRLFTPEEFRIFNRSIDAPKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
DB 121 KDLKSKSPKSPRLFTPEEFRIFNRSIDAPKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180

QY 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKRR 240
DB 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKRR 240

QY 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273
DB 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273

RESULT 12
AAB73567
ID AAB73567 standard; protein; 273 AA.
AC AAB73567;
XX
XX 07-AUG-2001 (first entry)
DE Human SCF protein isolated from the HT1080 fibrosarcoma cell line.
KW Human; stem cell factor; SCF; early haematopoietic progenitor cell;
KW blood disorder; leukaemia; Hodgkin's disease; lymphoma; splenomegaly;
KW anaemia; Kala azar; septicemia; malaria; hypopigmentation disorder;
KW HT1080 fibrosarcoma.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Protein 1..25
FT /label= Signal_peptide
FT Protein 26..273
FT /label= Mature_SCF
XX
FN US6204363-B1.
XX
XX 20-MAR-2001.
XX
XX 25-NOV-1992; 92US-00982255.
XX
PR 16-OCT-1989; 89US-00422383.
PR 11-JUN-1990; 90US-00537198.
PR 24-AUG-1990; 90US-00537616.
PR 01-OCT-1990; 90US-00589701.
PR 10-APR-1991; 91US-00684535.
XX
XX (AMGE-) AMGEN INC.
XX
XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
XX
XX WPI; 2001-256683/26.
XX
XX N-PSDB; AAB73501.
XX
XX New stem cell factor polypeptides and their analogs which stimulate
XX growth of early hematopoietic progenitors, useful for treating aplastic
XX anemia, carcinoma, multiple myeloma, vitiligo, kala azar, Hodgkin's
XX disease.
XX

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PS Claim 7; Fig 42A-42C; 166pp; English.
XX
CC The present sequence representing human SCF (stem cell factor) protein is
CC isolated from the HT1080 fibrosarcoma cell line. The present invention
CC relates to novel stem cell factors (AAB73561-AAB73568, AAB73571-AAB73576)
CC and the polynucleotides encoding them. SCF stimulate primitive progenitor
CC cells including early haematopoietic progenitor cells. The invention also
CC describes SCF peptides (AAB73578-AAB73597) and the oligonucleotides
CC (AAH23859-AAH23895) used in the isolation of human and rat SCF sequences.
CC The polynucleotide encoding SCF is useful for producing SCF and useful in
CC gene therapy. It is useful for treating disorders involving blood cells
CC such as myelofibrosis, metastatic carcinoma, acute leukaemia, multiple
CC myeloma, Hodgkin's disease, lymphoma, Gaucher's disease, anaemia,
CC congestive splenomegaly, Kala azar, sarcoidosis, military tuberculosis,
CC disseminated fungus disease, Fulminating septicemia, malaria, vitamin
CC B12 and folic acid deficiency, Pyridoxine deficiency, and
CC hypopigmentation disorders such as prebaldism and vitiligo
XX
SQ Sequence 273 AA;
XX
Query Match      100.0%; Score 1397; DB 4; Length 273;
Best Local Similarity 100.0%; Pred. No. 2.2e-133; Indels 0; Gaps 0;
Matches 273; Conservative 0; Mismatches 0;

QY 1 MKKTQTWLTTCIYLQLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTTCIYLQLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISSEMVVQLSDSLTDLDFKPSNISSEGLSNYSIIDKLVNIIVDDLVKVCENSS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLDFKPSNISSEGLSNYSIIDKLVNIIVDDLVKVCENSS 120

QY 121 KDLKSKSPKSPRLFTPEEFRIFNRSIDAPKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
DB 121 KDLKSKSPKSPRLFTPEEFRIFNRSIDAPKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180

QY 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKRR 240
DB 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKRR 240

QY 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273
DB 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273

RESULT 13
AAU02766
ID AAU02766 standard; protein; 273 AA.
XX
XX AAU02766;
XX
XX 29-AUG-2001 (first entry)
DE Human SCF protein isolated from the HT1080 fibrosarcoma cell line.
XX
KW Human; stem cell factor; SCF; early haematopoietic progenitor cell;
KW blood disorder; leukaemia; Hodgkin's disease; lymphoma; splenomegaly;
KW anaemia; Kala azar; septicemia; malaria; hypopigmentation disorder;
KW HT1080 fibrosarcoma.
XX
OS Homo sapiens.
XX
XX Key Location/Qualifiers
FT Protein 1..25
FT /label= Signal_peptide
FT Protein 26..273
FT /label= Mature_SCF
XX
XX US6218148-B1.
XX
XX 17-APR-2001.
XX
XX 21-DEC-1993; 93US-00172329.
XX

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XX 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.
 PR 24-AUG-1990; 90US-00573616.
 PR 01-OCT-1990; 90US-00589701.
 PR 25-NOV-1992; 92US-00982255.
 XX (AMGE-) AMGEN INC.
 XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
 PI WPI; 2001-281051/29.
 DR N-PSDB; AAS04224.
 XX Isolated DNA sequence, encoding polypeptide product useful for
 PT stimulating growth of early hematopoietic progenitor cells.
 XX Example 5; Fig 42A-42C; 167pp; English.
 XX The present sequence representing human SCF (stem cell factor) protein is
 CC isolated from the HT1080 fibrosarcoma cell line. The present invention
 CC relates to novel stem cell factors (AAU02761-AAU02767, AAU02770-AAU02775,
 CC AAU02797) and the polynucleotides encoding them. SCF stimulate primitive
 CC progenitor cells including early hematopoietic progenitor cells. The
 CC invention also describes SCF peptides (AAU02777-AAU02794) and the
 CC oligonucleotides (AAS04182-AAS04218) used in the isolation of human and
 CC rat SCF sequences. The polynucleotide encoding SCF is useful for
 CC producing SCF and useful in gene therapy. It is useful for treating
 CC disorders involving blood cells such as myelofibrosis, metastatic
 CC carcinoma, acute leukaemia, multiple myeloma, Hodgkin's disease,
 CC lymphoma, Gaucher's disease, anaemia, congestive splenomegaly, Kala azar,
 CC sarcoidosis, military tuberculosis, disseminated fungus disease,
 CC Fulminating septicemia, malaria, vitamin B12 and folic acid deficiency,
 CC pyridoxine deficiency, and hypopigmentation disorders such as piebaldism
 CC and vitiligo
 XX Sequence 273 AA;
 SQ

Query Match 100.0%; Score 1397; DB 4; Length 273;
 Best Local Similarity 100.0%; Pred. No. 2.2e-133;
 Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYQLLLFPNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYPVG 60
 DB 1 MKKTQTWLTCTIYQLLLFPNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPSSHCHWISSEMVVQLSDSLTDLKFSNISSEGLSNYSIIDKLVNIVDDLVCECKENSS 120
 DB 61 MDVLPSSHCHWISSEMVVQLSDSLTDLKFSNISSEGLSNYSIIDKLVNIVDDLVCECKENSS 120

QY 121 KDLKSFSPERLFTPEFFRIFNRSIDAFKDFVVASETSCVSVSTLSPKDSRVST 180
 DB 121 KDLKSFSPERLFTPEFFRIFNRSIDAFKDFVVASETSCVSVSTLSPKDSRVST 180

QY 181 KPFMLPPVAASLRNDSSSNKAKNPQDSSLHWAAMALPALFSLIIGFAGALYWKCR 240
 DB 181 KPFMLPPVAASLRNDSSSNKAKNPQDSSLHWAAMALPALFSLIIGFAGALYWKCR 240

QY 241 QPSLTRAVENTIINEEDNEISMLOKEREFOEV 273
 DB 241 QPSLTRAVENTIINEEDNEISMLOKEREFOEV 273

RESULT 14
 AAU05266
 ID AAU05266 standard; protein; 273 AA.
 XX AC
 XX AAU05266;
 XX 24-OCT-2001 (first entry)
 XX Human SCF protein isolated from the HT1080 fibrosarcoma cell line.
 XX

KW Human; stem cell factor; SCF; haematopoietic progenitor cell; AIDS;
 KW blood disorder; Hodgkin's disease; vitamin B12; folic acid deficiency;
 XX hypopigmentation disorder; viral disorder; HT1080 fibrosarcoma.
 OS Homo sapiens.
 XX Key Location/Qualifiers
 FT Protein 1..25
 FT Protein /label= Signal_peptide
 FT Protein 26..273
 FT Protein /label= Mature_SCF
 FT Misc-difference 97 /note= "Encoded by ATT"
 FT Misc-difference 258 /note= "Encoded by ATT"
 XX US6248319-B1.
 XX 19-JUN-2001.
 XX 24-MAY-1995; 95US-00449653.
 XX 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.
 PR 24-AUG-1990; 90US-00573616.
 PR 01-OCT-1990; 90US-00589701.
 PR 10-OCT-1990; 90US-00684535.
 PR 25-NOV-1992; 92US-00982255.
 PR 21-DEC-1993; 93US-00172329.
 XX (ZSEB/) ZSEBO K M.
 PA (BOSS/) BOSSELMAN R A.
 PA (SUGG/) SUGGS S V.
 PA (MART/) MARTIN F H.
 XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
 PI WPI; 2001-407312/43.
 DR N-PSDB; AAS10461.
 XX Increasing the number of early hematopoietic progenitor cells in the
 PT peripheral blood useful for the treatment of blood disorders including
 PT Hodgkin's disease comprises the administration of human stem cell factor.
 XX Example 3; Fig 42; 210pp; English.
 XX The present sequence represents human stem cell factor (SCF). The cDNA
 CC encoding this sequence is isolated from the HT1080 fibrosarcoma cell
 CC line. The sequence is described in an invention relating to novel stem
 CC cell factors, the polynucleotides encoding them and methods for producing
 CC the stem cell factors. The methods involve increasing the number of early
 CC haematopoietic progenitor cells in human peripheral blood by
 CC administering a haematopoietically effective human stem cell factor
 CC polypeptide. The methods are useful for the treatment of blood disorders,
 CC including myelofibrosis, myelocytosis, osteopetrosis, metastatic
 CC carcinoma, acute leukaemia, multiple myeloma, Hodgkin's disease,
 CC lymphoma, Gaucher's disease, Niemann-Pick disease, refractory anaemia,
 CC malaria, vitamin B12 and folic acid deficiency, hypopigmentation
 CC disorders i.e. piebaldism and viral induced disorders, including AIDS
 XX Sequence 273 AA;
 SQ

Query Match 100.0%; Score 1397; DB 4; Length 273;
 Best Local Similarity 100.0%; Pred. No. 2.2e-133;
 Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYQLLLFPNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYPVG 60
 DB 1 MKKTQTWLTCTIYQLLLFPNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPSSHCHWISSEMVVQLSDSLTDLKFSNISSEGLSNYSIIDKLVNIVDDLVCECKENSS 120
 DB 61 MDVLPSSHCHWISSEMVVQLSDSLTDLKFSNISSEGLSNYSIIDKLVNIVDDLVCECKENSS 120

QY 121 KDLKSKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVSVT 180
 DB 121 KDLKSKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVSVT 180
 QY 181 KPFMLPPVAASLRNDSSSSNRKAKNPQDSSLHWAAMALPALFSLIIGFAFGALYWKRR 240
 DB 181 KPFMLPPVAASLRNDSSSSNRKAKNPQDSSLHWAAMALPALFSLIIGFAFGALYWKRR 240
 QY 241 QPSLTRAVENTIINEEDNEISMLOEKEREFOEV 273
 DB 241 QPSLTRAVENTIINEEDNEISMLOEKEREFOEV 273

RESULT 15

AAE22326

ID AAE22326 standard; protein; 273 AA.

XX AC AAE22326;

DT 25-JUL-2002 (first entry)

DE Human SCF protein #2.

XX KW Human; stem cell factor; SCF protein; leucopaenia; thrombocytopaenia;
 KW anaemia; myelosuppression; nerve damage; myeloproliferative disorder;
 KW infertility; neoplasia; myelofibrosis; myeloclerosis; osteopetrosis;
 KW metastatic carcinoma; acute leukaemia; multiple myeloma; sarcoidosis;
 KW Hodgkin's disease; lymphoma; Gaucher's disease; Niemann-Pick disease;
 KW Letterer-Siwe disease; refractory erythroblastic anaemia; Kala azar;
 KW Di Guglielmo syndrome; congestive splenomegaly; splenic pancytopenia;
 KW disseminated fungus disease; Fulminating septicaemia; piebaldism; AIDS;
 KW acquired immune deficiency syndrome; malaria; military tuberculosis;
 KW pyridoxine deficiency; vitamin B12 deficiency; folic acid deficiency;
 KW Diamond Blackfan anaemia; hypopigmentation disorder; vitiligo.

XX OS Homo sapiens.

XX FH Key Location/Qualifiers

FT Peptide 1..25

FT /label= Signal_peptide

FT Protein 26..273

FT /note= "Mature human SCF protein"

XX US2002018763-A1.

XX PD 14-FEB-2002.

XX PF 12-JAN-1998; 98US-00005243.

XX PR 24-MAY-1995; 95US-00449653.

XX (ZSEB/) ZSEBO K M.

PA (BOSS/) BOSSELMAN R A.

PA (SUGG/) SUGGS S V.

PA (MART/) MARTIN F H.

XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;

XX WPI; 2002-350789/38.

DR N-PSDB; AAD35477.

XX Novel non-naturally-occurring stem cell factor polypeptide, useful for
 PT treating leucopenia, thrombocytopenia, anemia and for enhancing
 PT engraftment of bone marrow during transplantation in a mammal.

XX Claim 9; Fig 42; 217pp; English.

XX The present invention relates to novel non-naturally-occurring stem cell
 CC factor (SCF) polypeptides having an amino acid sequence sufficiently
 CC duplicative of that of naturally-occurring SCF to allow possession of
 CC haematopoietic biological activity of naturally occurring SCF. Sequences
 CC of the invention are useful for treating leucopaenia, thrombocytopaenia,

CC anaemia and for enhancing bone marrow recovery in treatment of radiation,
 CC engraftment of bone marrow during transplantation in mammals and chemical
 CC or chemotherapeutic induced bone marrow aplasia or myelosuppression. They
 CC are also useful for treating acquired immune deficiency in a human, nerve
 CC damage, neoplasia, infertility, myeloproliferative disorder, intestinal
 CC damage in a mammal. SCF sequences are useful for preparing biologically
 CC active polymer polypeptide adduct, for enhancing transfection of early
 CC haematopoietic progenitor cells with a gene, and transfer of a gene into
 CC a mammal. They are useful for treating myelofibrosis, myeloclerosis,
 CC osteopetrosis, metastatic carcinoma, acute leukaemia, multiple myeloma,
 CC Hodgkin's disease, lymphoma, Gaucher's disease, Niemann-Pick disease,
 CC Letterer-Siwe disease, refractory erythroblastic anaemia, Di Guglielmo
 CC syndrome, congestive splenomegaly, Kala azar, sarcoidosis, primary
 CC splenic pancytopenia, disseminated fungus disease, malaria, military
 CC tuberculosis, Fulminating septicaemia, pyridoxine deficiency, vitamin B12
 CC and folic acid deficiency, Diamond Blackfan anaemia, hypopigmentation
 CC disorders such as piebaldism, AIDS (acquired immune deficiency syndrome)
 CC and vitiligo. The present sequence is human SCF protein

SQ Sequence 273 AA;

Query Match 100.0%; Score 1397; DB 5; Length 273;

Best Local Similarity 100.0%; Pred. No. 2.2e-133;

Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTCYLQLLLFNLVKTGICRRNVNNVKDVKLVANLPKDYMITLKYVPG 60

DB 1 MKKTQTWLTCTCYLQLLLFNLVKTGICRRNVNNVKDVKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSSHCHWISSEMVVQLSDSLTDLDDKFSNISIEGLSNYSIIDKLVINIVDDLVECVKENS 120

DB 61 MDVLPSSHCHWISSEMVVQLSDSLTDLDDKFSNISIEGLSNYSIIDKLVINIVDDLVECVKENS 120

QY 121 KDLKSKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVSVT 180

DB 121 KDLKSKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVSVT 180

QY 181 KPFMLPPVAASLRNDSSSSNRKAKNPQDSSLHWAAMALPALFSLIIGFAFGALYWKRR 240

DB 181 KPFMLPPVAASLRNDSSSSNRKAKNPQDSSLHWAAMALPALFSLIIGFAFGALYWKRR 240

QY 241 QPSLTRAVENTIINEEDNEISMLOEKEREFOEV 273

DB 241 QPSLTRAVENTIINEEDNEISMLOEKEREFOEV 273

Search completed: February 22, 2006, 18:13:00

Job time : 161.566 secs

GenCore version 5.1.7
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OM protein - protein search, using sw model
Run on: February 22, 2006, 18:13:23 ; Search time 22.562 Seconds
(without alignments)
1164.223 Million cell updates/sec

Title: US-10-620-642-61
Perfect score: 1397
Sequence: 1 MKKTQWLTTCIYLQLLFPN.....NEEDNEISMLQKREPOEV 273

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues
Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_80:*

1: pir1:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1397	100.0	273	2	A35974
2	1231	88.1	245	2	B61190
3	1203.5	86.1	274	2	I46575
4	1184.5	84.8	274	2	S47571
5	1180.5	84.5	274	2	I46929
6	1157	82.8	273	2	S65801
7	991	70.9	245	2	A37934
8	885.5	63.4	202	2	S58313
9	857	61.3	201	2	B35974
10	703	50.3	287	2	JN0637
11	702	50.3	287	2	S70366
12	589	42.2	253	2	S70367
13	576.5	41.3	124	2	S29052
14	175.5	12.6	51	2	B35971
15	172.5	12.3	49	2	A35971
16	106	7.6	465	2	H97165
17	101	7.2	1490	2	T16086
18	100.5	7.2	602	2	T09062
19	100.5	7.2	647	2	F90595
20	97.5	7.0	1107	2	S61667
21	97	6.9	1447	2	F82909
22	95.5	6.8	484	2	T25944
23	95.5	6.8	614	2	B86461
24	93.5	6.7	1293	2	T27886
25	93.5	6.7	1813	2	T19295
26	92.5	6.6	164	2	B69616
27	92.5	6.6	246	2	T19850
28	92.5	6.6	398	2	I53340
29	92.5	6.6	512	2	G86773

30	91.5	6.5	575	2	D84668	hypothetical prote
31	91.5	6.5	767	2	T19690	hypothetical prote
32	90.5	6.5	251	2	B86647	hypothetical prote
33	90.5	6.5	616	2	A69136	ATP-dependent Clp
34	90.5	6.5	1425	2	E89303	protein C47E8.8 [i
35	90.5	6.5	1675	2	T31473	hypothetical prote
36	90	6.4	378	2	F64300	formate dehydrogen
37	90	6.4	774	2	T32987	hypothetical prote
38	90	6.4	2100	2	T38128	t7123.15 protein -
39	89.5	6.4	268	2	G81257	probable hemein up
40	89.5	6.4	335	2	S44922	K18 antigen - Enta
41	89.5	6.4	384	2	H64161	hypothetical prote
42	89	6.4	242	2	T27226	hypothetical prote
43	89	6.4	292	2	B17133	hypothetical prote
44	89	6.4	982	2	T15967	hypothetical prote
45	88.5	6.3	378	2	T25672	hypothetical prote

ALIGNMENTS

RESULT 1

A35974
mast cell growth factor precursor - human
N:Alternate names: kit ligand; stem cell factor
C:Species: Homo sapiens (man)
C:Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
C:Accession: A35974; A61190
R:Martin, F.H.; Suggs, S.V.; Langley, K.E.; Lu, H.S.; Ting, J.; Okino, K.H.; Morris, C.F.
S:J.C.; Patel, A.C.; Fisher, E.F.; Erjavec, H.O.; Herrera, C.J.; Wypych, J.; Sachdev, R.
Cell 63, 203-211, 1990
A:Title: Primary structure and functional expression of rat and human stem cell factor [I
A:Reference number: A35974; MUID:91004219; PMID:12208279
A:Accession: A35974
A:Molecule type: mRNA
A:Residues: 1-273 <MAR>
A:Cross-references: UNIPROT:P21583; UNIPARC:UPI000002D482; GB:M59964; NID:G337933; PIDN
R:Anderson, D.M.; Williams, D.E.; Tushinski, R.; Gimpel, S.; Eisenman, J.; Cannizzaro, J.
Cell Growth Differ. 2, 373-378, 1991
A:Title: Alternate splicing of mRNAs encoding human mast cell growth factor and localiza
A:Reference number: A61190; MUID:92172791; PMID:1724381
A:Accession: A61190
A:Status: nucleic acid sequence not shown; not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 1-273 <AND>
A:Cross-references: UNIPARC:UPI000002D482
C:Genetics:
A:Gene: GDB:MGF
A:Cross-references: GDB:128026; OMIM:184745
A:Map position: 12q22-12q22
C:Superfamily: mouse mast cell growth factor
C:Keywords: alternative splicing; extracellular protein; glycoprotein; transmembrane pro
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-273/Product: mast cell growth factor #status predicted <MCS>
F:26-189/Product: (or 26-190) mast cell growth factor, soluble form #status predicted <I
F:215-237/Domain: transmembrane #status predicted <TM>
F:90,97,118,145,195/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 2e-101;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	MKKTQWLTTCIYLQLLFPNVLKTEGICRNVRNNTNNVKDKLVANLPKDYMITLKYYVPG	60
DB	1	MKKTQWLTTCIYLQLLFPNVLKTEGICRNVRNNTNNVKDKLVANLPKDYMITLKYYVPG	60
QY	61	MDVLPSPHCWISVMVQVLSDSLTDLLDKFNSISGLSNYSIIDKLVINIYDDLVKCVKNS	120
DB	61	MDVLPSPHCWISVMVQVLSDSLTDLLDKFNSISGLSNYSIIDKLVINIYDDLVKCVKNS	120
QY	121	KDLKSKSPKSPRLFTTPEEPFRINRSIDAPKDFVASETSDCVSVSTLSPEKDSRVSVT	180
DB	121	KDLKSKSPKSPRLFTTPEEPFRINRSIDAPKDFVASETSDCVSVSTLSPEKDSRVSVT	180

```
QY 181 KPFMLPPVAASSLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240
Db 181 KPFMLPPVAASSLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240

QY 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273
Db 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273

RESULT 2
B61190
mest cell growth factor, short form precursor - human
N:Alternate names: kit ligand, short form; stem cell factor, short form
C:Species: Homo sapiens (man)
C>Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 09-Jul-2004
C:Accession: B61190
R:Anderson, D.M.; Williams, D.E.; Tushinski, R.; Gimpel, S.; Eisenman, J.; Cannizzaro, I.
Cell Growth Differ. 2: 373-378, 1991
A:Title: Alternate splicing of mRNAs encoding human mast cell growth factor and localization
A:Reference number: A61190; MUID:92172791; PMID:1724381
A:Accession: B61190
A:Status: nucleic acid sequence not shown; not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 1-245 <AND>
A:CROSS-references: UNIPROT:P21583; UNIPARC:UPI000002B351
C:Comment: Alternative splicing produces this short form in which a predicted cleavage s
C:Genetics:
A:Gene: GDB:MGF
A:CROSS-references: GDB:128056; OMIM:184745
A:Map position: 12q22-12q22
C:Superfamily: mouse mast cell growth factor
C:Keywords: alternative splicing; glycoprotein; transmembrane protein
F:1-25/Domain: signal sequence #status predicted <SIG>
F:187-209/Domain: transmembrane #status predicted <TMN>
F:90,97,118,145/Binding site: carbohydrate (Aan) (covalent) #status predicted

Query Match 88.1%; Score 1231; DB 2; Length 245;
Best Local Similarity 89.4%; Pred. No. 1.5e-88;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNKDVTKLVANLPKDYMITLKYYPG 60
Db 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNKDVTKLVANLPKDYMITLKYYPG 60

QY 61 MDVLPSCWCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
Db 61 MDVLPSCWCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120

QY 121 KDLKSKSPKSPRLFTPEEPFRIFNRSIDAFKDF-VVASETSDCVVSTLSPEKDSRVSV 180
Db 121 KDLKSKSPKSPRLFTPEEPFRIFNRSIDAFKDF-VVASETSDCVVSTLSPEKDSRVSV 180

QY 181 KPFMLPPVAASSLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240
Db 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 212

QY 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273
Db 213 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 245

RESULT 3
I46575
c-kit ligand - pig
C:Species: Sus scrofa domestica (domestic pig)
C>Date: 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change 09-Jul-2004
C:Accession: I46575
R:Zhang, Z.; Anthony, R.V.
Biol. Reprod. 50, 95-102, 1994
A:Title: Porcine stem cell factor/c-kit ligand: its molecular cloning and localization
A:Reference number: I46575; MUID:94146218; PMID:7508758
A:Accession: I46575
```

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: mRNA

A:Residues: 1-274 <ZHA>

A:CROSS-references: UNIPROT:Q28030; UNIPARC:UPI0000135640; GB:I07786; NID:9164420; PIDN:

C:Superfamily: mouse mast cell growth factor

Query Match 86.1%; Score 1203.5; DB 2; Length 274;
Best Local Similarity 85.8%; Pred. No. 2.4e-86;
Matches 235; Conservative 22; Mismatches 16; Indels 1; Gaps 1;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNKDVTKLVANLPKDYMITLKYYPG 60

Db 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNKDVTKLVANLPKDYMITLKYYPG 60

QY 61 MDVLPSCWCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120

Db 61 MDVLPSCWCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120

QY 121 KDLKSKSPKSPRLFTPEEPFRIFNRSIDAFKDF-VVASETSDCVVSTLSPEKDSRVSV 179

Db 121 KDLKSKSPKSPRLFTPEEPFRIFNRSIDAFKDF-VVASETSDCVVSTLSPEKDSRVSV 180

QY 180 TKPFMLPPVAASSLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 239

Db 181 TKPFMLPPVAASSLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240

QY 240 ROPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273

Db 241 KOPNLTRTVENIQINEEDNEISMLOEKEREFOEV 274

RESULT 4

S47571

stem cell factor, longer isoform - bovine

C:Species: Bos primigenius taurus (cattle)

C>Date: 27-Jan-1995 #sequence_revision 27-Jan-1995 #text_change 09-Jul-2004

C:Accession: S47571

R:Zhou, J.H.; Hikono, H.; Ohtaki, M.; Kubota, T.; Sakurai, M.

Biochim. Biophys. Acta 1223, 148-150, 1994

A:Title: Cloning and characterization of cDNAs encoding two normal isoforms of bovine st

A:Reference number: S47571; MUID:94339176; PMID:7520283

A:Accession: S47571

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-274 <ZHO>

A:CROSS-references: UNIPROT:Q28132; UNIPARC:UPI0000135639; EMBL:D28934; NID:9538520; PID:

C:Superfamily: mouse mast cell growth factor

Query Match 84.8%; Score 1184.5; DB 2; Length 274;
Best Local Similarity 84.7%; Pred. No. 7.1e-85;
Matches 232; Conservative 20; Mismatches 21; Indels 1; Gaps 1;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNKDVTKLVANLPKDYMITLKYYPG 60

Db 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNKDVTKLVANLPKDYMITLKYYPG 60

QY 61 MDVLPSCWCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120

Db 61 MDVLPSCWCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120

QY 121 KDLKSKSPKSPRLFTPEEPFRIFNRSIDAFKDF-VVASETSDCVVSTLSPEKDSRVSV 179

Db 121 KDLKSKSPKSPRLFTPEEPFRIFNRSIDAFKDF-VVASETSDCVVSTLSPEKDSRVSV 180

QY 180 TKPFMLPPVAASSLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 239

Db 181 TKPFMLPPVAASSLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240

QY 240 ROPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273

Db 241 KOPNLTRTVENIQINEEDNEISMLOEKEREFOEV 274

RESULT 5

stem cell factor - dog
146929
C/Species: Canis lupus familiaris (dog)
C/Date: 04-Sep-1997 #sequence_revision 04-Sep-1997 #text_change 09-Jul-2004
C/Accession: 146929
R/Shull, R.M.; Suggs, S.V.; Langley, K.E.; Okino, K.H.; Jacobsen, P.W.; Martin, P.H.
Exp. Hematol. 20, 1118-1124, 1992
A/Title: Canine stem cell factor (C-kit ligand) supports the survival of hematopoietic p
A/Reference number: 146929; MUID:93106145; PMID:1281786
A/Accession: 146929
A/Status: preliminary; translated from GB/EMBL/DBJ
A/Molecule type: mRNA
A/Residues: 1-274 <SHU>
A/Cross-references: UNIPROT:Q06220; UNIPARC:UPI000013563A; GB:S53329; NID:g262240; PIDN:
C/Superfamily: mouse mast cell growth factor

[illegible]

9 JUL 1968

RESULT 6
 S65801
 mast cell growth factor - mouse
 N:Alternate names: hematopoietic growth factor KL; ligand steel factor; stem cell factor
 C:Species: Mus musculus (house mouse)
 C>Date: 28-Oct-1996 #sequence_revision 27-Feb-1997 #text change 09-Jul-2004
 C/Accession: S65801; A43751; A35976; A35977; A35972; A35973; I48768
 R:Bedell, M.A.; Copeland, N.G.; Jenkins, N.A.
 Genetics 142, 927-934, 1996
 A:Title: Multiple pathways for Steel regulation suggested by genomic and sequence analysis
 A:Reference number: S65801; MUID:97002551; PMID:8849898
 A/Accession: S65801
 A>Status: preliminary
 A:Molecule type: mRNA
 A/Residues: 1-273 <BED>
 A/Cross-references: UNIPROT:P20826; UNIPARC:UPI0000028C9B; EMBL:U44725; NID:g1172215; PTD:
 Mol. Biol. Cell 3, 349-362, 1992
 R:Huang, E.-J.; Nocka, K.H.; Buck, J.; Besmer, P.
 A:Title: Differential expression and processing of two cell associated forms of the kit
 A/Reference number: A43751; MUID:92330001; PMID:1378327
 A/Accession: A43751
 A>Status: preliminary
 A:Molecule type: mRNA
 A/Residues: 1-214, 'L', 216-273 <HUA>
 A/Cross-references: UNIPARC:UPI000014D0C1; GB:S40364; NID:g251668; PIDN:AAB22554.2; PID:
 A>Note: the authors translated the codon TTG for residue 215 as TTP
 R:Huang, E.; Nocka, K.; Beier, D.R.; Chu, T.Y.; Buck, J.; Lahm, H.W.; Wellner, D.; Lederer
 Cell 63, 225-233, 1990
 A:Title: The hematopoietic growth factor KL is encoded by the Sl locus and is the ligand
 A/Reference number: A35976; MUID:91004221; PMID:1698557
 A/Accession: A35976


```
|||||
181 KPFLPPVVAASSLRNDSSSSNRKAAPEDSGLQWTAMALPALLSLVIGFAPGALYWKXK 240
|||||

Qy 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273
|||||

Db 241 QSSLTRAVENTQINEEDNEISMLOKEREFOEV 273
|||||

RESULT 7
A37934
A:Title: Transmembrane form of the kit ligand growth factor is determined by alternative
A:Reference number: A37934; MUID:91160046; PMID:1705866
A:Accession: A37934
A:Molecule type: mRNA
A:Residues: 1-245 <FLA>
A:Cross-references: UNIPROT:P20826; UNIPARC:UPI000002B352; GB:M64262
R:Huang, E.J.; Nocka, K.H.; Buck, J.; Besmer, P.
Mol. Biol. Cell 3 349-362, 1992
A:Title: Differential expression and processing of two cell associated forms of the kit-
A:Reference number: A43751; MUID:92330001; PMID:1378327
A:Accession: B43751
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-173 'R', 175-186 'L', 188-245 <HUA>
A:Cross-references: UNIPARC:UPI0000179560; GB:S04534
A:Note: the authors translated the codon TTG for residue 187 as Trp
C:Superfamily: mouse mast cell growth factor

Query Match 70.9%; Score 991; DB 2; Length 245;
Best Local Similarity 72.2%; Pred. No. 7, 1e-70;
Matches 197; Conservative 19; Mismatches 29; Indels 28; Gaps 1;

Qy 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNVKDVTKLVANLPKDYMITLKYYPG 60
|||||

Db 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNVKDVTKLVANLPKDYMITLKYYPG 60
|||||

Qy 61 MDVLPSCWISWVQVLSLTLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVCEVKENSS 120
|||||

Db 61 MDVLPSCWISWVQVLSLTLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVCEVKENAP 120
|||||

Qy 121 KDLKSKSPKPRPLFTPEEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
|||||

Db 121 KNIKESPKRPTFTPEEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 174
|||||

Qy 181 KPFLPPVVAASSLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAPGALYWKXK 240
|||||

Db 175 -----KAAPEDSGLQWTAMALPALLSLVIGFAPGALYWKXK 212
|||||

Qy 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273
|||||

Db 213 QSSLTRAVENTQINEEDNEISMLOKEREFOEV 245
|||||

RESULT 8
S58313
stem cell factor precursor - sheep (fragment)
C:Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C:Date: 14-Jan-1996 #sequence_revision 01-Mar-1996 #text_change 09-Jul-2004
C:Accession: S58313
R:McInnes, C.J.; Logan, M.; Falconer, V.M.; Rawlins, P.; Huntly, J.; Haig, D.
submitted to the EMBL Data Library, August 1995
A:Description: Molecular cloning and biological activity of ovine stem cell factor.
A:Reference number: S58313
A:Accession: S58313
A:Status: preliminary
A:Molecule type: mRNA
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```
A:Residues: 1-202 <MCI>
A:Cross-references: UNIPROT:P79368; UNIPARC:UPI0000016C4E5; EMBL:Z50743; NID:G940807; PID:
C:Superfamily: mouse mast cell growth factor

Query Match 63.4%; Score 885.5; DB 2; Length 202;
Best Local Similarity 86.1%; Pred. No. 9e-62;
Matches 174; Conservative 15; Mismatches 12; Indels 1; Gaps 1;

Qy 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNVKDVTKLVANLPKDYMITLKYYPG 60
|||||

Db 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNVKDVTKLVANLPKDYMITLKYYPG 60
|||||

Qy 61 MDVLPSCWISWVQVLSLTLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVCEVKENSS 120
|||||

Db 61 MDVLPSCWISWVQVLSLTLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVCEVKENHSF 120
|||||

Qy 121 KDLKSKSPKPRPLFTPEEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSV 179
|||||

Db 121 ENVKSSKSPKPRQFTPEKPFIFNKSIDAFKDLIVASTSECVCISSTSSPEKDSRVSV 180
|||||

Qy 180 TKPFMLPPVVAASSLRNDSSSSN 201
|||||

Db 181 TKPFMLPPVVAASSLRNDSSSSN 202
|||||

RESULT 9
B35974
stem cell factor protein precursor - rat (fragment)
C:Species: Rattus norvegicus (Norway rat)
C:Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
C:Accession: B35974; A39805
R:Martin, P.H.; Suggs, S.V.; Langley, K.E.; Lu, H.S.; Ting, J.; Okino, K.H.; Morris, C.F.
S. J.C.; Patel, A.C.; Fisher, E.F.; Erjavec, H.O.; Herrera, C.J.; Wypych, J.; Sachdev, R.
Cell 63, 203-211, 1990
A:Title: Primary structure and functional expression of rat and human stem cell factor D
A:Reference number: A35974; MUID:91004219; PMID:2208279
A:Accession: B35974
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-201 <MAR>
A:Cross-references: UNIPROT:P21581; UNIPARC:UPI0000144090; GB:M59966; NID:G206861; PID:
R:Lu, H.S.; Clogston, C.L.; Wypych, J.; Fausset, P.R.; Lauren, S.; Mendiaz, E.A.; Zsebo,
J. Biol. Chem. 266, 8102-8107, 1991
A:Title: Amino acid sequence and post-translational modification of stem cell factor iso
A:Reference number: A39805; MUID:91217037; PMID:1708771
A:Accession: A39805
A:Status: preliminary
A:Molecule type: protein
A:Residues: 'E', 27-190 <LUA>
A:Cross-references: UNIPARC:UPI000014F57C
C:Superfamily: mouse mast cell growth factor

Query Match 61.3%; Score 857; DB 2; Length 201;
Best Local Similarity 82.6%; Pred. No. 1.5e-59;
Matches 166; Conservative 15; Mismatches 20; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNVKDVTKLVANLPKDYMITLKYYPG 60
|||||

Db 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNVKDVTKLVANLPNDYMITLNYVAG 60
|||||

Qy 61 MDVLPSCWISWVQVLSLTLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVCEVKENSS 120
|||||

Db 61 MDVLPSCWISWVQVLSLTLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVACMEENAP 120
|||||

Qy 121 KDLKSKSPKPRPLFTPEEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
|||||

Db 121 KNVKESLKKPRTFTPEEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
|||||

Qy 181 KPFLPPVVAASSLRNDSSSSN 201
|||||

Db 181 KPFLPPVVAASSLRNDSSSSN 201
|||||
```


RESULT 10

JN0637
stem cell factor precursor - chicken
C:Species: Gallus gallus (chicken)
C>Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 09-Jul-2004
C:Accession: JN0637
R:Zhou, J.H.; Ohtaki, M.; Sakurai, M.
Gene 127, 269-270, 1993
A:Title: Sequence of a cDNA encoding chicken stem cell factor.
A:Reference number: JN0637; MUID:93273244; PMID:7684722
A:Accession: JN0637
A:Molecule type: mRNA
A:Residues: 1-287 <ZHO>
A:Cross-references: UNIPROT:Q09108; UNIPARC:UPI000013563C; GB:D13516; NID:G391648; PIDN:
A:Experimental source: brain
C:Superfamily: mouse mast cell growth factor
C:Keywords: growth factor; transmembrane protein
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-287/Product: stem cell factor #status predicted <MAT>
F:226-248/Domain: transmembrane #status predicted <TM>

Query Match 50.3%; Score 703; DB 2; Length 287;
Best Local Similarity 51.9%; Pred. No. 2.3e-47;
Matches 149; Conservative 50; Mismatches 74; Indels 14; Gaps 6;

Qy 1 MKKTQTWLTCTIYQLQLLNLPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
Db 1 MKKAQTWITTCFCLQLLLNLPLVKAQSCGNPVTDDVNDIAKLVGNLNDYLTILKYVPK 60
Qy 61 MDVLPSCWISWMVQVLSLTDLLDKFNI---SEGLSNYSIIDKLNIIVDDLVCEVK 117
Db 61 MDSLPHNCWHLWVPEFSLHNLQKFDSDMSDVLNYSIINNLTRIINDLMACIAP 120
Qy 118 NSSKD-LKSKPKSPRLFTPEEPRIENRSDAPKDFVASETSDCVVSSLT-SPEKDS 175
Db 121 DKNKDFIKENGLHYEEDRFIPENFRLNFTSVIEVKEFADSLDKNDKDCIMPSTVETPENS 180
Qy 176 RVSVTKPFMLPPVAASSLRND-----SSSNRKAKNPPGDSLSLHWAAMALPALPSLIIG 229
Db 181 RVAVTKTISFPFVAASSLRNDISGNTSSNKEALGFISSSLQGISIALTSLLSLIG 240
Qy 230 FAFGALYKKQRP-SLTRAVENTQIN--EEDNEISMLOEKEREFOEV 273
Db 241 FILGALYKKTHPKSRPESNETTQCHGCQENEISMLOEKEREHLQV 287

RESULT 11

JN0366
stem cell factor long form precursor - quail
C:Species: Coturnix coturnix (quail)
C>Date: 06-Dec-1996 #sequence_revision 25-Apr-1997 #text_change 21-Jul-2000
C:Accession: S70366
R:Petitte, J.N.; Kulik, M.J.
Biochim. Biophys. Acta 1307, 149-151, 1996
A:Title: Cloning and characterization of cDNAs encoding two forms of avian stem cell fac
A:Reference number: S70366; MUID:96283808; PMID:8679698
A:Accession: S70366
A:Molecule type: mRNA
A:Residues: 1-287 <PET>
A:Cross-references: UNIPARC:UPI000013563D; EMBL:U43078; NID:g1150875; PIDN:AAC59933.1; F
A:Superfamily: mouse mast cell growth factor
C:Keywords: growth factor; transmembrane protein
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-287/Product: stem cell factor long form #status predicted <MAT>
F:226-250/Domain: transmembrane #status predicted <TM>

Query Match 50.3%; Score 702; DB 2; Length 287;
Best Local Similarity 51.6%; Pred. No. 2.8e-47;
Matches 148; Conservative 51; Mismatches 74; Indels 14; Gaps 6;

Qy 1 MKKTQTWLTCTIYQLQLLNLPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
Db 1 MKKAQTWITTCFCLQLLLNLPLVKTQSSCGNPVTDDVNDIAKLVGNLNDYLTILKYVPK 60

Qy 61 MDVLPSCWISWMVQVLSLTDLLDKF---SNISEGLSNYSIIDKLNIIVDDLVCEVK 117
Db 61 MDSLPHNCWHLWVPEFSLHNLQKFDSDMSDVLNYSIINNLTRIINDLMACIAP 120
Qy 118 NSSKD-LKSKPKSPRLFTPEEPRIENRSDAPKDFVASETSDCVVSSLT-SPEKDS 175
Db 121 DKNKDFIKENGLHYEEDRFIPENFRLNFTSVIEVKEFADSLDKNDKDCIMPSTVETPENS 180
Qy 176 RVSVTKPFMLPPVAASSLRND-----SSSNRKAKNPPGDSLSLHWAAMALPALPSLIIG 229
Db 181 RVAVTKTISFPFVAASSLRNDISGNTSSNKEALGFISSSLQGISIALTSLLSLIG 240
Qy 230 FAFGALYKKQRP-SLTRAVENTQIN--EEDNEISMLOEKEREFOEV 273
Db 241 FILGALYKKTHPKSRPESNETTQCHGCQENEISMLOEKEREHLQV 287

RESULT 12

JN0367
stem cell factor short form precursor - quail
C:Species: Coturnix coturnix (quail)
C>Date: 06-Dec-1996 #sequence_revision 25-Apr-1997 #text_change 21-Jul-2000
C:Accession: S70367
R:Petitte, J.N.; Kulik, M.J.
Biochim. Biophys. Acta 1307, 149-151, 1996
A:Title: Cloning and characterization of cDNAs encoding two forms of avian stem cell fac
A:Reference number: S70366; MUID:96283808; PMID:8679698
A:Accession: S70367
A:Molecule type: mRNA
A:Residues: 1-253 <PET>
A:Cross-references: UNIPARC:UPI000002834F; EMBL:U43079; NID:g1150877; PIDN:AAC59934.1; F
C:Superfamily: mouse mast cell growth factor
C:Keywords: growth factor; transmembrane protein
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-253/Product: stem cell factor short form #status predicted <MAT>
F:192-216/Domain: transmembrane #status predicted <TM>

Query Match 42.2%; Score 589; DB 2; Length 253;
Best Local Similarity 45.2%; Pred. No. 1.5e-38;
Matches 127; Conservative 48; Mismatches 70; Indels 36; Gaps 6;

Qy 1 MKKTQTWLTCTIYQLQLLNLPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
Db 1 MKKAQTWITTCFCLQLLLNLPLVKTQSSCGNPVTDDVNDIAKLVGNLNDYLTILKYVPK 60
Qy 61 MDVLPSCWISWMVQVLSLTDLLDKF---SNISEGLSNYSIIDKLNIIVDDLVCEVK 117
Db 61 MDSLPHNCWHLWVPEFSLHNLQKFDSDMSDVLNYSIINNLTRIINDLMACIAP 120
Qy 118 NSSKD-LKSKPKSPRLFTPEEPRIENRSDAPKDFVASETSDCVVSSLT-SPEKDS 175
Db 121 DKNKDFIKENGLHYEEDRFIPENFRLNFTSVIEVKEFADSLDKNDKDCIMPSTVETPENS 177
Qy 176 RVSVTKPFMLPPVAASSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALPSLIIGFAPGAL 235
Db 178 -----NEALGFISSSSLQGISIALTSLLSLIGFILGVI 212

Qy 236 YWKKRQP-SLTRAVENTQIN--EEDNEISMLOEKEREFOEV 273

Db 213 YWKKTHPKSRPESNETTQCHGCQENEISMLOEKEREHLQV 253

RESULT 13

S29052
stem cell factor - human (fragments)
C:Species: Homo sapiens (man)
C>Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 09-Jul-2004
C:Accession: S29052
R:Lu, H.S.; Clogston, C.L.; Wypych, J.; Parker, V.P.; Lee, T.D.; Swiderek, K.; Balceraj
; Langley, K.E.
Arch. Biochem. Biophys. 298, 150-158, 1992
A:Title: Post-translational processing of membrane-associated recombinant human stem cel

A:Reference number: S29052; MUID:92398336; PMID:1381905
A:Accession: S29052
A>Status: preliminary
A:Molecule type: protein
A:Residues: 1-13;14-30;31-46;47-59;60-86;87-95;96-107;108-124 <LUH>
A:Cross-references: UNIPROT:Q7M4N8; UNIPARC:UPI0000179563; UNIPARC:UPI0000179564; UNIPARC:UPI0000179564
IPARC:UPI0000179564
C:Superfamily: mouse mast cell growth factor

Query Match 41.3%; Score 576.5; DB 2; Length 124;
Best Local Similarity 75.2%; Pred. No. 5.4e-38;
Matches 124; Conservative 0; Mismatches 0; Indels 41; Gaps 4;

Qy 26 EGICRNVTVNNVKDVTKLAVNLPKDYMITLKVYVPGMDVLPSCWISWMVQSLDILL 85
Db 1 EGICRNVTVNNVK-----DVLPSHCWISWMVQSL----- 30
Qy 86 DKFSNISEGLSNYSIIIDKLNVIVDLVECVKENSCKLKKSKSPKPEPLFTPEEFPRIFN 145
Db 31 DKFSNISEGLSNYSII-----DDLVECVKENSCKLKKSKSPKPEPLFTPEEFPRIFN 83
Qy 146 RSIDAFKDFVVASSTSDCVSSTLSPEKDSRVSVTKPFMLPPVAA 190
Db 84 RSI-----DFVVASSTSDCVSSTLSPEKDSRVSVTKPFMLPPVAA 124

RESULT 14

B35971
mast cell growth factor - mouse (fragment)
C:Species: Mus musculus (house mouse)
C>Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
C:Accession: B35971
R:Williams, D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Nese, K.; March, C.J.; Park, I.
Cell 63, 167-174, 1990
A:Title: Identification of a ligand for the c-kit proto-oncogene.
A:Reference number: A35971; MUID:91004215; PMID:1698553
A:Accession: B35971
A>Status: preliminary
A:Molecule type: protein
A:Residues: 1-51 <WIL>
A:Cross-references: UNIPROT:P20826; UNIPARC:UPI0000179562
C:Superfamily: mouse mast cell growth factor
C:Keywords: transmembrane protein

Query Match 12.6%; Score 175.5; DB 2; Length 51;
Best Local Similarity 72.3%; Pred. No. 2.7e-07;
Matches 34; Conservative 5; Mismatches 7; Indels 1; Gaps 1;

Qy 28 ICRNRVTNNVKDVTKLAVNLPKDYMITLKVYVPGMDVLPSCWISWMV 74
Db 3 ICGNPVTDNVKDIITKLAVNLPNDYMITLNYVAGMDVLPSS--WLDDMI 48

RESULT 15

A35971
mast cell growth factor - mouse (fragment)
C:Species: Mus musculus (house mouse)
C>Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
C:Accession: A35971
R:Williams, D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Nese, K.; March, C.J.; Park, I.
Cell 63, 167-174, 1990
A:Title: Identification of a ligand for the c-kit proto-oncogene.
A:Reference number: A35971; MUID:91004215; PMID:1698553
A:Accession: A35971
A>Status: preliminary
A:Molecule type: protein
A:Residues: 1-49 <WIL>
A:Cross-references: UNIPROT:P20826; UNIPARC:UPI0000179561
C:Superfamily: mouse mast cell growth factor
C:Keywords: transmembrane protein

Query Match 12.3%; Score 172.5; DB 2; Length 49;
Best Local Similarity 73.5%; Pred. No. 4.4e-07;

Matches 36; Conservative 4; Mismatches 6; Indels 3; Gaps 2;
Qy 28 ICRNRVTNNVKDVTKLAVNLPKDYMITLKVYVPGMDVLPSCWISWMVQ 76
Db 3 ICGNPVTDNVKDIITKLAVNLPNDYMITLNYVAGMDVLPSS--WY-DMVIQ 48
Search completed: February 22, 2006, 18:20:27
Job time : 23.562 secs

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 22, 2006, 18:05:51 ; Search time 140.636 Seconds
(without alignments)
1369.555 Million cell updates/sec

Title: US-10-620-642-61
Perfect score: 1397
Sequence: 1 MKKTQTWILFCIYLQLLFN.....NEEDNBISMLQEKREBQEV 273

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

- 1: uniprot_sprot.*
- 2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1397	100.0	273	1 SCF HUMAN	P21583 homo sapien
2	1224	87.6	245	2 Q86524 9PRIM	Q86524 papio cynoc
3	1219.5	87.3	274	1 SCF HORSE	Q95md2 equus cabal
4	1217.5	87.2	274	1 SCF FELCA	P79169 felis silve
5	1203.5	86.1	274	1 SCF FIG	Q29030 sus scrofa
6	1187.5	85.0	274	1 SCF CAPHI	Q95m19 capra hircu
7	1184.5	84.8	274	1 SCF BOVIN	Q28132 bos taurus
8	1180.5	84.5	274	1 SCF CANFA	Q06220 canis fami
9	1180.5	84.5	274	1 SCF MUSVI	Q95n18 mustela vis
10	1171	83.8	238	2 Q68D22 HUMAN	Q68d22 homo sapien
11	1158	82.9	273	1 SCF RAT	P21581 rattus norv
12	1157	82.8	273	1 SCF MOUSE	P20826 mus musculu
13	1156.5	82.8	267	1 SCF SHEEP	P79368 ovis aries
14	992	71.0	245	2 Q54A14 RAT	Q54a14 rattus norv
15	865	61.9	208	2 Q64384 9MURI	Q64384 mus sp. c-k
16	865	61.9	208	2 Q78ED8 MOUSE	Q78ed8 mus musculu
17	835	59.8	164	2 Q86419 9MACMU	Q86419 macaca mula
18	703	50.3	287	1 SCF CHICK	Q09108 gallus gall
19	702	50.3	287	1 SCF COTJA	Q09314 coturnix co
20	576.5	41.3	124	2 Q7M4N8 HUMAN	Q7m4n8 homo sapien
21	509	36.4	123	2 Q61854 MOUSE	Q61854 mus musculu
22	480	34.4	160	2 Q8C9K1 MOUSE	Q8c9k1 mus musculu
23	375	26.8	271	2 Q3YGP2 9MBME	Q3ygp2 ambystoma m
24	343	24.6	270	2 Q7ZXV0 XENLA	Q7zxv0 xenopus lae
25	309	21.6	270	2 Q6AYN7 XENLA	Q6ayn7 xenopus lae
26	299	21.4	270	2 Q6DTW3 XENLA	Q6dtw3 xenopus lae
27	207.5	14.9	272	2 Q56JH6 BRARE	Q56jh6 brachydanio
28	154.5	11.1	234	2 Q4S1A5 9TETNG	Q4s1a5 tetradon n
29	145	10.4	36	2 Q8SPM7 CANFA	Q8spm7 canis fami
30	130	9.3	267	2 Q56JH5 BRARE	Q56jh5 brachydanio
31	127	9.1	1697	2 Q81FM4 PLAF7	Q81fm4 plasmodium

32	127	9.1	1711	2	Q8MWP2 PLAF7A	Q8mwp2 plasmodium
33	127	9.1	1713	2	Q8MWP1 PLAF7A	Q8mwp1 plasmodium
34	127	9.1	1716	2	Q8MWH2 PLAF7A	Q8mwh2 plasmodium
35	114.5	8.2	330	2	Q4Z4Q3 PLABE	Q4z4q3 plasmodium
36	110	7.9	555	2	Q7REM0 PLABO	Q7rem0 plasmodium
37	109	7.8	1011	2	Q6FLY9 CANGA	Q6fly9 candida gla
38	108.5	7.8	373	2	Q75F78 ASHGO	Q75f78 ashbya goss
39	107.5	7.7	989	1	PTP3 DDCDI	P54637 dictyosteli
40	107.5	7.7	990	2	Q54SY3 DICDI	Q54sy3 dictyosteli
41	106.5	7.6	1231	2	Q7RQB9 PLARO	Q7rqe9 plasmodium
42	106.5	7.6	1665	2	Q6YA77 PLARE	Q6ya77 plasmodium
43	106.5	7.6	5542	2	Q7YXX2 CRYPV	Q7yxx2 cryptospori
44	106	7.6	465	2	Q97H56 CLOAB	Q97h56 clostridium
45	105.5	7.6	1498	2	Q96VK6 EMENI	Q96vk6 emericella

ALIGNMENTS

RESULT 1
ID SCF HUMAN STANDARD; PRT; 273 AA.
AC P21583; Q16487; Q9UOK7;
DT 01-MAY-1991 (Rel. 18, Created)
DT 01-MAY-1991 (Rel. 18, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast cell growth factor) (MGF).
DE Name=KITLG; Synonym=MGF; SCF;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Homo.
OC NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
RX MEDLINE=91004219; PubMed=2208279; DOI=10.1016/0092-8674(90)90301-T; Martin F.H., Suggs S.V., Langley K.E., Lu H.S., Ting J., Okino K.H., Morris C.P., McNiece I.K., Jacobsen P.W., Mendiaz E.A., Birkett N.C., Smith K.A., Johnson M.J., Parker V.P., Flores J.C., Patel A.C., Fisher E.P., Erjavec H.O., Herrera C.J., Wypych J., Sachdev R.K., Pope J.A., Leslie I., Wen D., Lin C.-H., Cupples R.L., Sebo K.M.; "Primary structure and functional expression of rat and human stem cell factor DNAs.";
RL Cell 63:203-211(1990).
RN [2]
RP NUCLEOTIDE SEQUENCE (ISOFORM 2).
RX PubMed=1724381; Anderson D.M., Williams D.E., Tushinski R., Gimpel S., Eisenman J., Cannizzaro L.A., Aronson M., Croce C.M., Huebner K., Cosman D.; "Alternate splicing of mRNAs encoding human mast cell growth factor and localization of the gene to chromosome 12q22-q24.";
RL Cell Growth Differ. 2:373-378(1991).
RN [3]
RP NUCLEOTIDE SEQUENCE (ISOFORM 2).
RX MEDLINE=99160429; PubMed=10049787; DOI=10.1006/bbrc.1999.0260; Blair H.C., Julian B.A., Cao X., Jordan S.E., Dong S.S.; "Parathyroid hormone-regulated production of stem cell factor in human osteoblasts and osteoblast-like cells.";
RL Biochem. Biophys. Res. Commun. 255:778-784(1999).
RN [4]
RP NUCLEOTIDE SEQUENCE.
RX Han C., Peng X., Yuan J., Qiang B.; Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.
RN [5]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1).
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Colling P.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaby S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalhus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.,
RA "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences".
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
RN [6]
RP NUCLEOTIDE SEQUENCE OF 167-248 (ISOFORM 2).
RX MEDLINE=92360843; PubMed=1379846;
RA Toyota M., Hinoda Y., Itoh F., Tuijtsaki M., Imai K., Yachi A.;
RT "Expression of two types of kit ligand mRNAs in human tumor cells";
RL Int. J. Hematol. 55:301-304 (1992).
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins.
CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (isoforms 1 and 2).
CC Also exists as a secreted soluble form (isoform 1 only) (By
CC similarity).
CC -!- ALTERNATIVE PRODUCTS:
CC Event-Alternative splicing; Named isoforms=2;
CC Name=1; Synonyms=SCF248;
CC IsoId=P21583-1; Sequence=Displayed;
CC Name=2; Synonyms=SCF220;
CC IsoId=P21583-2; Sequence=VSP 006022;
CC -!- DEVELOPMENTAL STAGE: Acts in the early stages of hematopoiesis.
CC -!- PTM: A soluble form is produced by proteolytic processing of
CC isoform 1 in the extracellular domain.
CC -!- SIMILARITY: Belongs to the SCF family.
CC -!- DATABASE: NAME=Atlas Genet. Cytogenet. Oncol. Haematol.;
CC WWW="http://www.infobiogen.fr/services/chronocancer/Genes/MGFID142.html".
CC
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; M59964; AA85450.1; -; mRNA.
CC EMBL; AF119835; AAD22048.1; -; mRNA.
CC EMBL; AF400436; AAK92485.1; -; mRNA.
CC EMBL; AF400437; AAK92486.1; -; mRNA.
CC EMBL; BC069733; AAH69733.1; -; mRNA.
CC EMBL; BC069783; AAH69783.1; -; mRNA.
CC EMBL; BC069797; AAH69797.1; -; mRNA.
CC EMBL; BC074725; AAH74725.1; -; mRNA.
CC EMBL; S42571; AAB22846.2; -; mRNA.
CC PIR; A35974; A35974.
CC PIR; B61190; B61190.
CC PDB; 1EXZ; X-ray; A/B/C/D=26-166.
CC PDB; 1SCF; X-ray; A/B/C/D=1-273.
CC Ensembl; ENSG0000049130; Homo sapiens.
CC HGNC; HGNC:6343; KITLG.
CC MIM; 184745; -.
CC GO; GO:0005886; C:plasma membrane; NAS.
CC GO; GO:0005173; P:stem cell factor receptor binding; NAS.
CC GO; GO:0008283; P:cell proliferation; TAS.
CC GO; GO:0030097; P:hematopoiesis; NAS.
CC GO; GO:0007165; P:signal transduction; TAS.
CC InterPro; IPR012351; Cytokine_4_hlx.
CC InterPro; IPR003452; SCF.
CC PANTHER; PTHR11574; SCF; 1.
CC Pfam; PF02404; SCF; 1.

KW 3D-structure; Alternative splicing; Cell adhesion; Glycoprotein;
KW Growth factor; Signal; Transmembrane.
FT SIGNAL 1 25 Kit ligand.
FT CHAIN 26 273 Extracellular (Potential).
FT TOPO_DOM 26 214 Potential.
FT TRANSMEM 215 237 Potential.
FT TOPO_DOM 238 273 Cytoplasmic (Potential).
FT CARBOHYD 90 90 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 97 97 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 118 118 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 145 145 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 195 195 N-linked (GlcNAc...) (Potential).
FT DISULFID 29 114 By similarity.
FT DISULFID 68 163 By similarity.
FT VARSPPLIC 174 202 DSRVSVTKPFWLPPVPAASSLNDSSSSNR -> G (in
FT isoform 2).
FT /FTID=VSP_006022.
FT L -> S (in Ref. 3 and 4; AAK92486).
FT K -> R (in Ref. 3 and 4; AAK92486).
FT L -> F (in Ref. 3 and 4; AAK92486).
SQ SEQUENCE 273 AA; 30899 MW; 19FD362CB59C6607 CRC64;

Query Match 100.0%; Score 1397; DB 1; Length 273;
Best Local Similarity 100.0%; Pred. No. 1.7e-98;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMTLKVPVG 60
Db 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMTLKVPVG 60

Qy 61 MDVLPSCHWISEMVMVQLSDSLTLLDKFSNISISGLSNYSIIDKLNVIVDDLVECKENSS 120
Db 61 MDVLPSCHWISEMVMVQLSDSLTLLDKFSNISISGLSNYSIIDKLNVIVDDLVECKENSS 120

Qy 121 KDLKSKFKSPKPEPRLFTPEEPFRIINRSDIDAFKDFVASETSDCVVSTLSPEKDSRVSVT 180
Db 121 KDLKSKFKSPKPEPRLFTPEEPFRIINRSDIDAFKDFVASETSDCVVSTLSPEKDSRVSVT 180

Qy 181 KPFWLPPVPAASSLNDSSSSNRKAKNPBGDSSLHWAAMALPALSLIIGFAGALYWKCR 240
Db 181 KPFWLPPVPAASSLNDSSSSNRKAKNPBGDSSLHWAAMALPALSLIIGFAGALYWKCR 240

Qy 241 QPSLTRAVENTIQINEEDNEISMLQEKEREFOEV 273
Db 241 QPSLTRAVENTIQINEEDNEISMLQEKEREFOEV 273

RESULT 2
Q86524_9PRIM PRELIMINARY; PRT; 245 AA.
AC Q86524;
DT 01-JUN-2003 (TrEMBLrel. 24, Created)
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Stem cell factor.
OS Papio cynocephalus x Papio anubis.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC Cercopithecoidea; Cercopithecinae; Papio.
OX NCBI_TaxID=208510;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Kalina T., Storek J.;
RL Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY226584; AAO72537.1; -; mRNA.
DR HSPG; P21583; 1EXZ.
DR SMR; O86524; 29-161.
DR GO; GO:0016020; C:membrane; IEA.
DR GO; GO:0005173; P:stem cell factor receptor binding; IEA.
DR GO; GO:0007155; P:cell adhesion; IEA.
DR InterPro; IPR003452; SCF.
DR Pfam; PF02404; SCF; 1.
SQ SEQUENCE 245 AA; 27887 MW; 937B3CAF28D694FA CRC64;

Query Match 87.6%; Score 1224; DB 2; Length 245;
 Best Local Similarity 88.6%; Pred. No. 2.4e-85;
 Matches 242; Conservative 1; Mismatches 2; Indels 28; Gaps 1;

QY 1 MKKTQTWLTCTIYQLQLLFPNLTKEGICRRVTVNNVNDVTKLVANLPKDYMITLKYVPG 60
 DB 1 MKKTQTWLTCTIYQLQLLFPNLTKEGICRRVTVNNVNDVTKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISSEMVVQSLDSTLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
 DB 61 MDVLPSCWISSEMVVQSLDSTLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120

QY 121 KDLKSKFSKSPRLPTPEEPRIENRSDAFKDFVVASETSDCVVSTLSPKDSRSV 180
 DB 121 KDLKSKFSKSPRLPTPEEPRIENRSDAFKDFVVASETSDCVVSTLSPKDSRSV 180

QY 181 KPFMLPPVAASSLRNDSNRRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240
 DB 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 212

QY 241 QPSLTRAVENTIQINEEDNEISMLQEKEREFOEV 273
 DB 213 QPSLTRAVENTIQINEEDNEISMLQEKEREFOEV 245

RESULT 3

SCF_HORSE STANDARD; PRT: 274 AA.
 AC Q95MD2; O62765; Q95MG7; Q95MG8; Q9N1Y5;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast cell growth factor) (MGF)
 DE cell growth factor (MGF)
 GN Name=KITLG; Synonym=MGF, SCF;
 OS Equus caballus (Horse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Perissodactyla; Equidae; Equus.
 OX NCBI_TaxID=9796;
 RN [1]
 RP NUCLEOTIDE SEQUENCE OF 4-264.
 RA Terry R.R., Mickelson J.R., Schmutz S., Cothran E.G., Bailey E.;
 RT "Equus caballus mast cell growth factor (MGF).";
 RL Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.
 RN [2]
 RP NUCLEOTIDE SEQUENCE OF 12-267.
 RA Tissue=Skin;
 RC Rieder S., Checa-Cortes M.L., Joerg H., Stranzinger G.;
 RT "An equine sequence homologous to stem cell factor (KIT-ligand).";
 RL Submitted (MAR-1998) to the EMBL/GenBank/DBJ databases.
 RN [3]
 RP NUCLEOTIDE SEQUENCE OF 107-202 AND 227-274.
 RA Terry R.R., Bailey E.F., Cothran E.G.;
 RT "Evaluation of MGF as the candidate gene for Appaloosa spotting.";
 RL Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
 RN [4]
 RP NUCLEOTIDE SEQUENCE OF 147-197.
 RA Caetano A.R., Shue Y.-L., Lyons L.A., Laughlin T.P., O'Brien S.J.,
 RA Murray J.D., Bowling A.T.;
 RT "A primary Human-Horse comparative gene map.";
 RL Submitted (JAN-2000) to the EMBL/GenBank/DBJ databases.
 CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to augment the proliferation of both myeloid and lymphoid hematopoietic progenitors in bone marrow culture. Mediates also cell-cell adhesion. Acts synergistically with other cytokines, probably interleukins (By similarity).
 CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
 CC -!- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a secreted soluble form (By similarity).
 CC -!- PTM: A soluble form is produced by proteolytic processing of the extracellular domain (By similarity).
 CC -!- SIMILARITY: Belongs to the SCF family.

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DR EMBL; AF401625; AAK94474.1; -; mRNA.
 DR EMBL; AF053498; AAC97076.1; -; mRNA.
 DR EMBL; AF367704; AAK63249.1; -; Genomic DNA.
 DR EMBL; AF367706; AAK63250.1; -; Genomic DNA.
 DR EMBL; AF130770; AAF36716.1; -; Genomic DNA.
 DR SMR; Q95MD2; 29-161.
 DR InterPro; IPR012351; Cytokine_4_hlx.
 DR InterPro; IPR003452; SCF.
 DR PANTHER; PTHR11574; SCF; 1.
 DR Pfam; PF02404; SCF; 1.
 KW Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
 FT SIGNAL 1 25
 FT CHAIN 26 274
 FT TOPO_DOM 26 215
 FT TRANSMEM 216 238
 FT TOPO_DOM 239 274
 FT CARBOHYD 90 90
 FT CARBOHYD 97 97
 FT CARBOHYD 145 145
 FT CARBOHYD 196 196
 FT CARBOHYD 207 207
 FT DISULFID 29 114
 FT DISULFID 68 164
 FT CONFLICT 15 15
 FT CONFLICT 241 241
 FT CONFLICT 241 241
 SQ SEQUENCE 274 AA; 31217 MW; 96C1D4C9059132F2 CRC64;

Query Match 87.3%; Score 1219.5; DB 1; Length 274;

Best Local Similarity 87.2%; Pred. No. 6.2e-85;
 Matches 239; Conservative 19; Mismatches 15; Indels 1; Gaps 1;

QY 1 MKKTQTWLTCTIYQLQLLFPNLTKEGICRRVTVNNVNDVTKLVANLPKDYMITLKYVPG 60
 DB 1 MKKTQTWLTCTIYQLQLLFPNLTKEGICRRVTVNNVNDVTKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISSEMVVQSLDSTLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
 DB 61 MDVLPSCWISSEMVVQSLDSTLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120

QY 121 KDLKSKFSKSPRLPTPEEPRIENRSDAFKDFVVASETSDCVVSTLSPKDSRSV 179
 DB 121 ENVKSKYKQSRSLFTPEEPRIENRSDAFKDFVVASETSDCVVSTLSPKDSRSV 180

QY 180 TKPFLPPVAASSLRNDSNRRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 239
 DB 181 TKPFLPPVAASSLRNDSNRRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240

QY 240 RQPSLTRAVENTIQINEEDNEISMLQEKEREFOEV 273
 DB 241 KQPNLTRAVENTIQINEEDNEISMLQEKEREFOEV 274

RESULT 4

SCF_FELCA STANDARD; PRT: 274 AA.
 AC P79169;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast cell growth factor) (MGF).
 DE cell growth factor (MGF).
 GN Name=KITLG; Synonym=SCF;
 OS Felis silvestris catus (Cat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Carnivora; Flesipedata; Felidae; Felinae; Felis.

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OX NCBI_TaxID=9685;
RN [1]
RP NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
RX MEDLINE=97069946; PubMed=8912926;
RA Durham S.P., Onions D.B.;
RT "The cloning and sequencing of cDNAs encoding two isoforms of feline
RL stem cell factor.";
RL DNA Seq. 6:233-237(1996).
CC -1- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins (By similarity).
CC -1- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -1- SUBCELLULAR LOCATION: Type I membrane protein (isoforms 1 and 2).
CC Also exists as a secreted soluble form (isoform 1 only) (By
CC similarity).
CC -1- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=1;
CC IsoId=P79169-1; Sequence=Displayed;
CC Name=2;
CC IsoId=P79169-2; Sequence=VSP_006021;
CC -1- PTM: A soluble form is produced by proteolytic processing of
CC isoform 1 in the extracellular domain (By similarity).
CC -1- SIMILARITY: Belongs to the SCF family.
CC -----
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
DR EMBL; D50833; BAA09445.1; -; mRNA.
DR SMR; P79169; 29-161.
DR InterPro; IPR012351; Cytokine_4_hlx.
DR InterPro; IPR003452; SCF.
DR PANTHER; PTHR11574; SCF; 1.
DR Pfam; PF02404; SCF; 1.
DR Signal; Transmembrane.
FT SIGNAL 1 25 Potential.
FT CHAIN 26 274 Kit ligand.
FT TOPO_DOM 26 215 Extracellular (Potential).
FT TRANSMEM 216 238 Potential.
FT TOPO_DOM 239 274 Cytoplasmic (Potential).
FT CARBOHYD 90 90 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 97 97 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 145 145 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 196 196 N-linked (GlcNAc...) (Potential).
FT DISULFID 29 114 By similarity.
FT DISULFID 68 164 By similarity.
FT VARSPLIT 175 203 isoform 2.
SQ SEQUENCE 274 AA; 30988 MW; C5B78DBE791237BE CRC64;
/ftid=VSP_006021.
Query Match 87.2%; Score 1217.5; DB 1; Length 274;
Best Local Similarity 87.2%; Pred. No. 8.e-85;
Matches 239; Conservative 17; Mismatches 17; Indels 1; Gaps 1;
QY 1 MKKTQTWLTCTIYQLLLFNLPLVKTGICRRVTVNVKDVTKLVANLPKDYMTLKYPG 60
DB 1 MKKTQTWLTCTIYQLLLFNLPLVKTGICRRVTVNVKDVTKLVANLPKDYMTLKYPG 60
QY 61 MDVLPSHCWISVMVQLSDSLTDLKFSNISEGLSNYSIIDKLVNIIVDDLVCEVKENSS 120
DB 61 MDVLPSHCWISVMVQLSDSLTDLKFSNISEGLSNYSIIDKLVNIIVDDLVCEVKENSS 120
QY 121 KDLKSKFSKSPRLFTPTPEFFRIFNRSIDAFKDF-VVASETSDCVVSSTLSPKDSRVSV 179
DB 121 ENVKSSKSKSPRLFTPTPEFFRIFNRSIDAFKDFKDLKEMVASKTSECVCVSTLSPKDSRVSV 180

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QY 180 TKPFMLPPVAASSLRNDSSSNRKNKPNPGDSSSLHWAAMALPALFSLIIGFAFGALYWK 239
DB 181 TKPFMLPPVAASSLRNDSSSNRKNKATNPIDSSSIQWAVMALPACFSLVIGFAFGYWK 240
QY 240 QPSSLTRAVERNIIQINEEDNEISMLOKEKREFQEV 273
DB 241 KQPNLTRTVENIQINEEDNEISMLOKEKREFQEV 274

RESULT 5
SCF_PIG STANDARD; PRT; 274 AA.
ID Q29030;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast
DE cell growth factor) (MGF).
GN Name=KITLG; Synonyms=MGF;
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC Sus.
OX NCBI_TaxID=9823;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=94146218; PubMed=7508758;
RA Zhang Z., Anthony R.V.;
RT "Porcine stem cell factor/c-kit ligand: its molecular cloning and
RT localization within the uterus.";
RL Biol. Reprod. 50:95-102(1994).
CC -1- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins (By similarity).
CC -1- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -1- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a
CC secreted soluble form (By similarity).
CC -1- PTM: A soluble form is produced by proteolytic processing of the
CC extracellular domain (By similarity).
CC -1- SIMILARITY: Belongs to the SCF family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
DR EMBL; L07786; AAA53670.1; -; mRNA.
DR PIR; I46575; I46575.
DR SMR; Q29030; 29-161.
DR InterPro; IPR012351; Cytokine_4_hlx.
DR InterPro; IPR003452; SCF.
DR PANTHER; PTHR11574; SCF; 1.
DR Pfam; PF02404; SCF; 1.
DR Signal; Transmembrane.
KW Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
FT SIGNAL 1 25 By similarity.
FT CHAIN 26 274 Kit ligand.
FT TOPO_DOM 26 215 Extracellular (Potential).
FT TRANSMEM 216 238 Potential.
FT TOPO_DOM 239 274 Cytoplasmic (Potential).
FT CARBOHYD 90 90 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 97 97 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 145 145 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 196 196 N-linked (GlcNAc...) (Potential).
FT DISULFID 29 114 By similarity.
FT DISULFID 68 164 By similarity.
SQ SEQUENCE 274 AA; 31119 MW; FF3CB7114D7BA6A6 CRC64;
Query Match 86.1%; Score 1203.5; DB 1; Length 274;
Best Local Similarity 85.8%; Pred. No. 1.e-83;

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Matches 235; Conservative 22; Mismatches 16; Indels 1; Gaps 1;

QY 1 MKKQTWLTCTIYQLLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
 Db 1 MKKQTWLTCTIYQLLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIDKLVNIVDDLVCEKNS 120
 Db 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIDKLVNIVDDLVCEKNS 120

QY 121 KDLKSKSPKSPRLPTPEPFIRNRSIDAFKDF-VWASETSDCVVSTSLPEKDSRVSV 179
 Db 121 ENVKSSKSPKSPRLPTPEPFIRNRSIDAFKDFLEWAPKSECVISSTSLPEKDSRVSV 180

QY 180 TKPMLPPVAASSLRNDSSSNRKAHPGDSLSLHWAAMALPALFSLIIGFAGALYWK 239
 Db 181 TKPMLPPVAASSLRNDSSSNRKAHPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240

QY 240 RQPSLTRAVENTIQUINEEDNEISMLQEKEREFQEV 273
 Db 241 KQPNLTRIVENQINEEDNEISMLQEKEREFQEV 274

RESULT 6

SCF_CAPHI STANDARD; PRT; 274 AA.

AC Q95M19;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast cell growth factor) (MGP).
 DE Name=KITLG; Synonyms=SCF;
 OS Capra hircus (Goat).
 CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 CC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 CC Pecora; Bovidae; Caprinae; Capra.
 OX NCBI_TaxID=9925;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=Shiba; TISSUE=Brain;
 RA Yanagisawa N., Tanaka S., Yamanouchi K., Tojo H., Tachi C.;
 RT "Identification of splicing isoforms of caprine stem cell factor (SCF) transcripts and expression patterns of the two major isoforms, gSCF825 and gSCF741, in the brain and the skin of adult and fetal Shiba goats, Capra hircus.";
 RL Submitted (MAR-1997) to the EMBL/GenBank/DBJ databases.
 CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to augment the proliferation of both myeloid and lymphoid hematopoietic progenitors in bone marrow culture. Mediates also cell-cell adhesion. Acts synergistically with other cytokines, probably interleukins (by similarity).
 CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
 CC -!- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a secreted soluble form (by similarity).
 CC -!- PTM: A soluble form is produced by proteolytic processing of the extracellular domain (by similarity).
 CC -!- SIMILARITY: Belongs to the SCF family.
 CC
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not removed.
 CC
 CC EMBL; AB002152; BAB1753.1; -; mRNA.
 CC SMR; Q95M19; 29-161.
 DR InterPro; IPR012351; Cytokine_4_hlx.
 DR InterPro; IPR003452; SCF.
 DR PANTHER; PTHR11574; SCF; 1.
 DR Pfam; PF02404; SCF; 1.
 KW Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
 FT SIGNAL 1 25

FT CHAIN 26 274 Kit ligand.
 FT TOPO DOM 26 215 Extracellular (Potential).
 FT TRANSMEM 216 238 Potential.
 FT TOPO DOM 239 274 Cytoplasmic (Potential).
 FT CARBOHYD 90 90 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 97 97 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 145 145 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 196 196 N-linked (GlcNAc...) (Potential).
 FT DISULFID 29 114 By similarity.
 FT DISULFID 68 164 By similarity.
 SQ SEQUENCE 274 AA; 31053 MW; BBFE669A509BF65D CRC64;

Query Match 85.0%; Score 1187.5; DB 1; Length 274;
 Best Local Similarity 85.0%; Pred. No. 1.7e-82;
 Matches 233; Conservative 20; Mismatches 20; Indels 1; Gaps 1;

QY 1 MKKQTWLTCTIYQLLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
 Db 1 MKKQTWLTCTIYQLLLFNPLVKTGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIDKLVNIVDDLVCEKNS 120
 Db 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIDKLVNIVDDLVCEKNS 120

QY 121 KDLKSKSPKSPRLPTPEPFIRNRSIDAFKDF-VWASETSDCVVSTSLPEKDSRVSV 179
 Db 121 ENVKSSKSPKSPRLPTPEPFIRNRSIDAFKDFLEWAPKSECVISSTSLPEKDSRVSV 180

QY 180 TKPMLPPVAASSLRNDSSSNRKAHPGDSLSLHWAAMALPALFSLIIGFAGALYWK 239
 Db 181 TKPMLPPVAASSLRNDSSSNRKAHPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240

QY 240 RQPSLTRAVENTIQUINEEDNEISMLQEKEREFQEV 273
 Db 241 KQPNLTRIVENQINEEDNEISMLQEKEREFQEV 274

RESULT 7

SCF_BOVIN STANDARD; PRT; 274 AA.

AC Q28I32; OSTU74;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast cell growth factor) (MGP).
 DE Name=KITLG; Synonyms=SCF;
 OS Bos taurus (Bovine).
 CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 CC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 CC Pecora; Bovidae; Bovinae; Bos.
 OX NCBI_TaxID=9913;
 RN [1]
 RP NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
 RC TISSUE=Spleen;
 RX MEDLINE=94333176; PubMed=7520283; DOI=10.1016/0167-4889(94)90084-1;
 RA Zhou J., Hikono H., Ohtaki M., Kubota T., Sakurai M.;
 RT "Cloning and characterization of cDNAs encoding two normal isoforms of bovine stem cell factor.";
 RT Biochim. Biophys. Acta 1223:148-150(1994).
 RL [2]
 RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
 RC TISSUE=Fetal brain;
 RA Kudo T.;
 RL "Bovine counterpart of stem cell factor.";
 RL Submitted (OCT-1999) to the EMBL/GenBank/DBJ databases.
 RN [3]
 RP NUCLEOTIDE SEQUENCE OF 204-239, AND VARIANT ASP-218.
 RC STRAIN=Belgian Blue;
 RX MEDLINE=93315331; PubMed=10384045; DOI=10.1007/s003359901076;
 RA Seltz J.J., Schmutz S.M., Thue T.D., Buchanan F.C.;
 RT "A missense mutation in the bovine MGF gene is associated with the roan phenotype in Belgian Blue and Shorthorn cattle.";

FT TOPO_DOM 239 274 Cytoplasmic (Potential).
 FT CARBOHYD 90 90 N-linked (GlcNAc. . .) (Potential).
 FT CARBOHYD 97 97 N-linked (GlcNAc. . .) (Potential).
 FT CARBOHYD 145 145 N-linked (GlcNAc. . .) (Potential).
 FT CARBOHYD 196 196 N-linked (GlcNAc. . .) (Potential).
 FT CARBOHYD 29 114 By similarity.
 FT DISULFID 68 164 By similarity.
 SQ SEQUENCE 274 AA; 30870 MW; 4182B89AED00793B CRC64;

Query Match 84.5%; Score 1180.5; DB 1; Length 274;
 Best Local Similarity 85.4%; Pred. No. 5.9e-82;
 Matches 234; Conservative 17; Mismatches 22; Indels 1; Gaps 1;

QY 1 MKKTQTWLTCTIYQLLLFNLVKTGICRNRVTNNVDVKLVANLPKDYMITLKYVPG 60
 DB 1 MKKTQTWLTCTIYQLLLFNLVKTGICRNRVTNNVDVKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISVMVQLSDTLDDKFSNISEGLSNYSIIDKLVNVDLVECVKENS 120
 DB 61 MDVLPSCWISVMVQLSVSLTDLDDKFSNISEGLSNYSIIDKLVNVDLVECVKENS 120

QY 121 KOLKSFSPKSPRLFTPEEPFRIFNRSIDAFKDF-VVASSETSDCVVSTLSPKDSRVSV 179
 DB 121 ENVKAPKSPRLFTPEEPFRIFNRSIDAFKDFLTVASKSECVVSTLSPKDSRVSV 180

QY 180 TKPFMLPPVAASSLRNDSSSNRKAAPGDSLSLHWAAMALPALFSLIIGFAGALYWK 239
 DB 181 TKPFMLPPVAASSLRNDSSSNRKAASIGDSNLQWAAALPAPFSLVIGFAGALYWK 240

QY 240 RQPSLTRAVENTIQTNEEDNEISMLQEKEREFQEV 273
 DB 241 KQPNLTRTAVENIQTNEEDNEISMLQEKEREFQEV 274

RESULT 9

SCF_MUSVI
 ID SCF_MUSVI STANDARD; PRT; 274 AA.
 AC Q95N18; Q95MNS;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast cell growth factor) (MGP).
 GN Name=KITLG; Synonyms=SCF;
 OS Mus musculus (House mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Mustelidae; Mustelinae; Mustela.
 OX NCBI_TaxID=96067;
 RN [1]
 RP NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
 RA Bennett R.D., Murphy B.D.;
 RL Submitted (NOV-2000) to the EMBL/GenBank/DBJ databases.
 CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to augment the proliferation of both myeloid and lymphoid hematopoietic progenitors in bone marrow culture. Mediates also cell-cell adhesion. Acts synergistically with other cytokines, probably interleukins (By similarity).
 CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
 CC -!- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a secreted soluble form (By similarity).
 CC -!- ALTERNATIVE PRODUCTS:
 CC Event=Alternative splicing; Named isoforms=2;
 CC Name=1;
 CC IsoId=Q95N18-1; Sequence=Displayed;
 CC Name=2;
 CC IsoId=Q95N18-2; Sequence=VSP_006024;
 CC -!- PTM: A soluble form is produced by proteolytic processing of isoform 1 in the extracellular domain (By similarity).
 CC -!- SIMILARITY: Belongs to the SCF family.
 CC -----
 CC This Swiss-Prot entry is copyrighted. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -

CC the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not removed.

CC -----
 DR EMBL; AV013712; AAG37434.1; -; mRNA.
 DR EMBL; AF323757; AAK73366.1; -; mRNA.
 DR SMR; Q95N18; 29-161.
 DR InterPro; IPRO12351; Cytokine_4_hlx.
 DR PANTHER; PTHR11574; SCF; 1.
 DR Pfam; PF02404; SCF; 1.
 KW Alternative splicing; Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
 FT SIGNAL 1 25 By similarity.
 FT CHAIN 26 274 Kit ligand.
 FT TOPO_DOM 26 215 Extracellular (Potential).
 FT TRANSMEM 216 238 Potential.
 FT TOPO_DOM 239 274 Cytoplasmic (Potential).
 FT CARBOHYD 90 90 N-linked (GlcNAc. . .) (Potential).
 FT CARBOHYD 97 97 N-linked (GlcNAc. . .) (Potential).
 FT CARBOHYD 145 145 N-linked (GlcNAc. . .) (Potential).
 FT CARBOHYD 196 196 N-linked (GlcNAc. . .) (Potential).
 FT DISULFID 29 114 By similarity.
 FT DISULFID 68 164 By similarity.
 FT VARSPIC 175 203 DSRVSVTKPFMLPPVAASSLRNDSSSNR -> G (in isoform 2).
 FT FT
 FT CONFLICT 65 65 /FTID=VSP_006024.
 FT CONFLICT 171 171 S -> P (in Ref. 1; AAK73366).
 FT CONFLICT 268 274 ERFQEV -> RESFRCNCGFYHTVLSYLG (in Ref. 1; AAK73366).
 SQ SEQUENCE 274 AA; 31035 MW; 5AC1619014AB5E72 CRC64;

Query Match 84.5%; Score 1180.5; DB 1; Length 274;
 Best Local Similarity 84.3%; Pred. No. 5.9e-82;
 Matches 231; Conservative 20; Mismatches 22; Indels 1; Gaps 1;

QY 1 MKKTQTWLTCTIYQLLLFNLVKTGICRNRVTNNVDVKLVANLPKDYMITLKYVPG 60
 DB 1 MKKTQTWLTCTIYQLLLFNLVKTGICRNRVTNNVDVKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISVMVQLSDTLDDKFSNISEGLSNYSIIDKLVNVDLVECVKENS 120
 DB 61 MDVLPSCWISVMVQLSVSLTDLDDKFSNISEGLSNYSIIDKLVNVDLVECVKENS 120

QY 121 KOLKSFSPKSPRLFTPEEPFRIFNRSIDAFKDF-VVASSETSDCVVSTLSPKDSRVSV 179
 DB 121 ENVKAPKSPRLFTPEEPFRIFNRSIDAFKDFLTVASKSECVVSTLSPKDSRVSV 180

QY 180 TKPFMLPPVAASSLRNDSSSNRKAAPGDSLSLHWAAMALPALFSLIIGFAGALYWK 239
 DB 181 TKPFMLPPVAASSLRNDSSSNRKAAPGDSNLQWAAALPAPFSLVIGFAGALYWK 240

QY 240 RQPSLTRAVENTIQTNEEDNEISMLQEKEREFQEV 273
 DB 241 KQPNLTRTAVENIQTNEEDNEISMLQEKEREFQEV 274

RESULT 10

Q68D22_HUMAN
 ID Q68D22 HUMAN PRELIMINARY; PRT; 238 AA.
 AC Q68D22;
 DT 25-OCT-2004 (TrEMBLrel. 28, Created)
 DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
 DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
 DE Hypothetical protein DKFZp686F2250.
 GN Name=DKFZp686F2250;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]

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RP NUCLEOTIDE SEQUENCE.
RC TISSUE-Amysgdala;
RG The German cDNA Consortium;
RA Ottenwaelder B., Obermaier B., Deutschenbaur S., Schaiipp A.,
RA Mewes H.W., Weil B., Amid C., Osanger A., Fobo G., Han M., Wiemann S.;
RL Submitted (AUG-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; CR749222; CAH18078.1; -; mRNA.
DR SMR; Q68D22; 9-126.
DR GO; GO:0016020; C:membrane; IEA.
DR GO; GO:0005173; F:stem cell factor receptor binding; IEA.
DR GO; GO:0007155; P:cell adhesion; IEA.
DR InterPro; IPR003452; SCF.
DR Pfam; PF02404; SCF; 1.
KW Hypothetical protein.
SQ SEQUENCE 238 AA; 26667 MW; 7D6B1B487BE3709B CRC64;

Query Match      83.8%; Score 1171; DB 2; Length 238;
Best Local Similarity 100.0%; Pred. No. 2.6e-81;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 44 VANLPKQYMITLKYVPGMDVLPSCWISSEMVVQLSDSLTDLDFSNISEGLSNYSIIDK 103
Dy 9 VANLPKQYMITLKYVPGMDVLPSCWISSEMVVQLSDSLTDLDFSNISEGLSNYSIIDK 68

Qy 104 LVNIIVDDLVCEVKENSKDLKSKFSPRLFTPEEPRIENRSDIDAPKDFVASETSDC 163
Dy 69 LVNIIVDDLVCEVKENSKDLKSKFSPRLFTPEEPRIENRSDIDAPKDFVASETSDC 128

Qy 164 VVSSTLSPEKDSRVSTKPFMLPPVAASSLRNDSNSSNRKAKNPPGDSLSLHWAAMALPAL 223
Dy 129 VVSSTLSPEKDSRVSTKPFMLPPVAASSLRNDSNSSNRKAKNPPGDSLSLHWAAMALPAL 188

Qy 224 FSLIIGFAGALYKWKQPSLTRAVENTQINEEDNEISMLQEKREFOEV 273
Dy 189 FSLIIGFAGALYKWKQPSLTRAVENTQINEEDNEISMLQEKREFOEV 238

RESULT 11
SCF RAT STANDARD; PRT; 273 AA.
AC P21581; Q9QW24; Q922E7;
DT 01-MAY-1991 (Rel. 18, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DE Kit ligand precursor (C-kit ligand) (stem cell factor) (SCF) (Mast
  cell growth factor) (MGF) (Hematopoietic growth factor KL).
GN Name=Kitlg; Synonyms=Mgf;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
[1]
RP NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
RA Teramoto T., Nagashima M., Thorgerirsson S.S.;
RL Submitted (JUN-1998) to the EMBL/GenBank/DBJ databases.
[2]
RP NUCLEOTIDE SEQUENCE OF 1-201, AND PARTIAL PROTEIN SEQUENCE.
RX MEDLINE=91004219; PubMed=2208279; DOI=10.1016/0092-8674(90)90301-T;
RA Martin F.H., Suggs S.V., Langley K.E., Lu H.S., Ting J., Okino K.H.,
RA Morris C.F., McNiece I.K., Jacobsen F.W., Mendiaz E.A., Birkett N.C.,
RA Smith K.A., Johnson M.J., Parker V.P., Flores J.C., Patel A.C.,
RA Fisher E.F., Erjavec H.O., Herrera C.J., Wypych J., Sachdev R.K.,
RA Pope J.A., Leslie I., Wen D., Lin C.-H., Cupples R.L., Zeebo K.M.;
RT "Primary structure and functional expression of rat and human stem
  cell factor DNAs";
RL Cell 63:203-211(1990).
[3]
RP PROTEIN SEQUENCE OF 26-190, CARBOHYDRATE-LINKAGE SITES, AND DISULFIDE
  BONDS.
RC STRAIN=Buffalo; TISSUE=Liver;
RX MEDLINE=91217037; PubMed=1708771;
RA Lu H.S., Clogston C.L., Wypych J., Pausset P.R., Lauren S.,

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RA Mendiaz E.A., Zeebo K.M., Langley K.E.;
RT "Amino acid sequence and post-translational modification of stem cell
  factor isolated from buffalo rat liver cell-conditioned medium.";
RL J. Biol. Chem. 266:8102-8107(1991).
[4]
RP PROTEIN SEQUENCE OF 26-39.
RX MEDLINE=91004218; PubMed=2208278; DOI=10.1016/0092-8674(90)90300-4;
RA Zeebo K.M., Wypych J., McNiece I.K., Lu H.S., Smith K.A.,
RA Karkare S.B., Sachdev R.K., Yushenko V.N., Birkett N.C.,
RA Williams L.R., Satyagal V.N., Tung W., Bosselman R.A., Mendiaz E.A.,
RA Langley K.E.;
RT "Identification, purification, and biological characterization of
  hematopoietic stem cell factor from buffalo rat liver-conditioned
  medium.";
RL Cell 63:195-201(1990).
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
  augment the proliferation of both myeloid and lymphoid
  hematopoietic progenitors in bone marrow culture. Mediates also
  cell-cell adhesion. Acts synergistically with other cytokines,
  probably interleukins.
CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (isoforms 1 and 2).
  Also exists as a secreted soluble form (isoform 1 only) (By
  similarity).
CC -!- ALTERNATIVE PRODUCTS:
  Event=Alternative splicing; Named isoforms=2;
  Name=1; Synonyms=KL-1;
  IsoId=P21581-1; Sequence=Displayed;
  Name=2; Synonyms=KL-2;
  IsoId=P21581-2; Sequence=VSP_006025;
CC -!- DEVELOPMENTAL STAGE: Acts in the early stages of hematopoiesis.
CC -!- PTM: A soluble form is produced by proteolytic processing of
  isoform 1 in the extracellular domain.
CC -!- SIMILARITY: Belongs to the SCF family.
CC
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  between the Swiss Institute of Bioinformatics and the EMBL outstation -
  the European Bioinformatics Institute. There are no restrictions on its
  use as long as its content is in no way modified and this statement is not
  removed.
CC
CC -----
CC EMBL; AF071204; AAD02827.1; -; mRNA.
CC EMBL; AF071205; AAD02828.1; -; mRNA.
CC EMBL; M59566; AAA42117.1; -; mRNA.
CC F01; B35974; B35974.
CC SMR; P21581; 29-159.
CC Ensembl; ENSRNOG00000005386; Rattus norvegicus.
CC InterPro; IPR012351; Cytokine_4_hlx.
CC PANTHER; PTHR11574; SCF.
CC Pfam; PF02404; SCF; 1.
CC Alternative splicing; Cell adhesion; Direct protein sequencing;
  Glycoprotein; Growth factor; Pyrrolidone carboxylic acid; Signal;
  Transmembrane.
FT SIGNAL 1 25
FT CHAIN 26 273
FT TOPO_DOM 26 214
FT TRANSMEM 215 237
FT TOPO_DOM 238 273
FT MOD_RES 26 26
FT CARBOHYD 90 90
FT CARBOHYD 145 145
FT CARBOHYD 167 167
FT CARBOHYD 168 168
FT CARBOHYD 180 180
FT CARBOHYD 195 195
FT DISULFID 29 114
FT DISULFID 68 163
FT VARSPIC 174 202
FT
FT DSRVSVTKPFMLPPVAASSLRNDSNSSNR -- G (in
  isoform 2).
FT /FTID=VSP_006025.
FT S -> P (in Ref. 1; AAD02828).
SQ CONFLICT 207 207
SQ SEQUENCE 273 AA; 30712 MW; C0F56527DC93FD27 CRC64;

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Query Match      82.9%; Score 1158; DB 1; Length 273;
Best Local Similarity 82.4%; Pred. No. 3.1e-80;
Matches 225; Conservative 18; Mismatches 30; Indels 0; Gaps 0;

QY 1 MKKTTMTTCYLYQLLNFPLVKTGICRNVNNTVNTKLVANLPKDYMTILKYVPG 60
DB 1 MKKTTMTTCYLYQLLNFPLVKTGICRNVNNTVNTKLVANLPKDYMTILNYVAG 60
QY 61 MDVLPFCHWISWVQVLSLTDLLDKFNSISGLSNYSIIDKLVNVDVLEVCXKNS 120
DB 61 MDVLPFCHWLRDWNVTHLSVSLTLLDKFNSISGLSNYSIIDKLVNVDVLEVCXKNS 120
QY 121 KDLKXFKSPERLPTPEFFRPFNRSIDAFKDFVVASSTSCVSVSTLSPKDSRVST 180
DB 121 KNVKESLKPETRNPTPEFFRPFNRSIDAFKDFVVASSTSCVSVSTLSPKDSRVST 180
QY 181 KPFMLPPVAASIRNDSSSNRKNKPNPCGSSLSHWAAMALPALPSLITGFAGALYWK 240
DB 181 KPFMLPPVAASLRNDSSSNRKAAPSPEDGLQWTAMALPALISLVITGFAGALYWK 240
QY 241 QPSLTRAVENTIQUINEDNEISMLOKEREFOEV 273
DB 241 QSSLTRAVENTIQUINEDNEISMLOKEREFOEV 273

RESULT 12
SCF_MOUSE
ID SCF_MOUSE STANDARD; PRT: 273 AA.
AC P20526; P97332; Q62524; Q64222; Q921N5;
DT 01-FEB-1991 (Rel. 17, Created)
DT 01-FEB-1991 (Rel. 18, Last sequence update)
DE 10-MAY-2005 (Rel. 47, Last annotation update)
DE Kit ligand precursor (C-kit ligand) (stem cell factor) (SCF) (Mast
DE cell growth factor) (MGF) (Hematopoietic growth factor KL) (Steel
DE factor).
GN Name=Kitlg; Synonyms=Kitl, Mgf, Sl, Slf;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Muridae; Murinae; Mus.
OX NCBI_TaxId=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
RC STRAIN=WC86F1;
RX MEDLINE=91004223; PubMed=1698558; DOI=10.1016/0092-8674(90)90304-W;
RA Anderson D.M., Lyman S.D., Baird A., Wignall J.M., Eisenman J.,
RA Rauch C., March C.J., Boswell H.S., Gimpei S.D., Cosman D.,
RA Williams D.E.;
RT "Molecular cloning of mast cell growth factor, a hematopoietin that is
RT active in both membrane bound and soluble forms.";
RL Cell 63:235-243(1990).
RN [2]
RP NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
RX MEDLINE=92330001; PubMed=1378327;
RA Huang E.J., Nocka K.H., Buck J., Besmer P.;
RT "Differential expression and processing of two cell associated forms
RT of the kit-ligand: KL-1 and KL-2.";
RL Mol. Biol. Cell 3:349-362(1992).
RN [3]
RP NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
RC STRAIN=WC86F1;
RX MEDLINE=91160046; PubMed=1705866; DOI=10.1016/0092-8674(91)90326-T;
RA Planagan J.G., Chan D.C., Leder P.;
RT "Transmembrane form of the kit ligand growth factor is determined by
RT alternative splicing and is missing in the Sld mutant.";
RL Cell 64:1025-1035(1991).
RN [4]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
RX MEDLINE=93012940; PubMed=1383087;
RA Branan C.I., Bedell M.A., Resnick J.L., Eppig J.J., Handel M.A.,
RA Williams D.E., Lyman S.D., Donovan P.J., Jenkins N.A., Copeland N.G.;
RT "Developmental abnormalities in Steel17H mice result from a splicing
RT defect in the steel factor cytoplasmic tail.";
RN [5]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
RX MEDLINE=97002551; PubMed=8849898;
RA Bedell M.A., Copeland N.G., Jenkins N.A.;
RT "Multiple pathways for Steel regulation suggested by genomic and
RT sequence analysis of the murine Steel gene.";
RL Genetics 142:927-934(1996).
RN [6]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1), AND VARIANTS PRO-193 AND SER-207.
RC STRAIN=C3H/E1; TISSUE=Brain;
RX MEDLINE=97032534; PubMed=8875893; DOI=10.1007/s003359900247;
RA Graw J., Loester J., Neuhauser-Klaus A., Pretsch W., Schmitt-John T.;
RT "Molecular analysis of two new Steel mutations in mice shows a
RT transversion or an insertion.";
RL Mamm. Genome 7:843-846(1996).
RN [7]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1), AND VARIANTS SER-122; PRO-193 AND
RP SER-207.
RC STRAIN=102/E1 x C3H/E1;
RX MEDLINE=98025115; PubMed=9360640; DOI=10.1016/S1383-5726(97)00005-8;
RA Graw J., Neuhauser-Klaus A., Pretsch W.;
RT "Detection of a point mutation (A to G) in exon 5 of the murine Mgf
RT gene defines a novel allele at the Steel locus with a weak
RT phenotype.";
RL Mutat. Res. 382:75-78(1997).
RN [8]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1).
RC STRAIN=C57BL/6J; TISSUE=Cerebellum;
RX MEDLINE=22354683; PubMed=1246881; DOI=10.1038/nature01266;
RA Okazaki Y., Furuto M., Kasukawa T., Adachi J., Bono H., Kondo S.,
RA Nikaide I., Oosato N., Saito R., Suzuki H., Yamanaka I., Kiyosawa H.,
RA Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schonbach C., Gojobori T.,
RA Baldarelli R., Hill D.P., Sult C., Hume D.A., Quackenbush J.,
RA Schriml L.M., Kanapin A., Matsuda H., Batalov S., Beisel K.W.,
RA Dalla E., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S.,
RA Gaasterland T., Gariboldi M., Gissi C., Godzik A., Gough J.,
RA Grimmond S., Gustincich S., Hirokawa N., Jackson I.J., Jarvis E.D.,
RA Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,
RA Maglott D.R., Maltais L., Marchionni L., McKenzie L., Miki H.,
RA Nagashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
RA Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA Ravasi T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M.,
RA Sadelin A., Schneider C., Sempile C.A., Setou M., Shimada K.,
RA Sultana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M.,
RA Verardo R., Wagner L., Wahlestedt C., Wang Y., Watanabe Y., Wells C.,
RA Wilming L.G., Wynshaw-Boris A., Yanagisawa M., Yang I., Yang L.,
RA Yuan Z., Zavolan M., Zhu Y., Zimmer A., Carninci P., Hayatsu N.,
RA Hirozane-Kishikawa T., Konno H., Nakamura M., Sakazume N., Sato K.,
RA Shiraki T., Waki K., Kawai J., Aizawa K., Arakawa T., Fukuda S.,
RA Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I.,
RA Miyazaki A., Sakai K., Sasaki D., Shibata K., Shinagawa A.,
RA Yasunishi A., Yoshino M., Waterston R., Lander E.S., Rogers J.,
RA Birney E., Hayashizaki Y.;
RT "Analysis of the mouse transcriptome based on functional annotation of
RT 60,770 full-length cDNAs.";
RL Nature 420:563-573(2002).
RN [9]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1), AND VARIANT
RP SER-207.
RX MEDLINE=22389257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins P.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh P.,
RA Diatchenko L., Marusina K., Farmer A.F., Rubin G.M., Hong L.,
RA Stapleton C., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Udell T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
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RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Sanchez A.,
RA Faney J., Helton E., Kettman M., Madan A., Rodrigues S., Rodriguez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Buterfield Y.S.N., Krzyzinski M.I., Skalska U., Smalilus D.B.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.,
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [10]
RP NUCLEOTIDE SEQUENCE OF 1-270 (ISOFORM 1), AND PROTEIN SEQUENCE OF
RP 26-65.
RX MEDLINE=91004221; PubMed=1698557; DOI=10.1016/0092-8674(90)90303-V;
RA Huang E., Nocka K., Beier D.R., Chu T.Y., Buck J., Lahm H.W.,
RA Wellner D., Leder P., Besmer P.;
RT "The hematopoietic growth factor KL is encoded by the SL locus and is
RT the ligand of the c-kit receptor, the gene product of the W locus.";
RL Cell 63:225-233(1990).
RN [11]
RP NUCLEOTIDE SEQUENCE OF 1-201.
RX MEDLINE=91004220; PubMed=1698556; DOI=10.1016/0092-8674(90)90302-U;
RA Zeebo K.M., Williams D.A., Geisler E.N., Broudy V.C., Martin F.H.,
RA Atkins H.L., Hsu R.-Y., Birkett N.C., Okino K.H., Murdock D.C.,
RA Jacobsen F.W., Langley K.E., Smith K.A., Takeishi T., Cattanech B.M.,
RA Galli S.J., Suggs S.V.;
RT "Stem cell factor is encoded at the SL locus of the mouse and is the
RT ligand for the c-kit tyrosine kinase receptor.";
RL Cell 63:213-224(1990).
RN [12]
RP PROTEIN SEQUENCE OF 26-53.
RX MEDLINE=91004216; PubMed=1698554; DOI=10.1016/0092-8674(90)90298-S;
RA Copeland N.G., Gilbert D.J., Cho B.C., Donovan P.J., Jenkins N.A.,
RA Cosman D., Anderson D., Lyman S.D., Williams D.E.;
RT "Mast cell growth factor maps near the steel locus on mouse chromosome
RT 10 and is deleted in a number of steel alleles.";
RL Cell 63:175-183(1990).
RN [13]
RP PARTIAL PROTEIN SEQUENCE OF 26-78.
RX MEDLINE=91004215; PubMed=1698553; DOI=10.1016/0092-8674(90)90297-R;
RA Williams D.E., Eisenman J., Baird A., Rauch C., van Ness K.,
RA March C.J., Park L.S., Martin U., Mochizuki D.Y., Boswell H.S.,
RA Burgess G.S., Cosman D., Lyman S.D.;
RT "Identification of a ligand for the c-kit proto-oncogene.";
RL Cell 63:167-174(1990).
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins.
CC -!- SUBUNIT: Homodimer, non-covalently linked (probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (isoforms 1 and 2).
CC Also exists as a secreted soluble form (isoform 1 only) (By
CC similarity).
CC -!- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=1; Synonyms=KL-1;
CC IsoId=P20826-1; Sequence=Displayed;
CC Name=2; Synonyms=KL-2;
CC IsoId=P20826-2; Sequence=VSP_006023;
CC -!- DEVELOPMENTAL STAGE: Acts in the early stages of hematopoiesis.
CC -!- PTM: A soluble form is produced by proteolytic processing of
CC isoform 1 in the extracellular domain.
CC -!- SIMILARITY: Belongs to the SCF family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----

DR EMBL; M59915; AAA40095.1; -; mRNA.
DR EMBL; M57647; AAA39538.1; -; mRNA.
DR EMBL; S40534; AAB22555.2; -; mRNA.
DR EMBL; X68989; CAA48778.1; -; mRNA.
DR EMBL; U44724; -; NOT ANNOTATED CDS; Genomic_DNA.
DR EMBL; U44725; AAC52447.1; -; mRNA.
DR EMBL; X95381; CAA64667.1; -; mRNA.
DR EMBL; X99322; CAA67698.1; -; mRNA.
DR EMBL; Y10287; CAA71329.1; -; mRNA.

Query Match 82.8%; Score 1157; DB 1; Length 273;
Best Local Similarity 82.8%; Pred. No. 3.7e-80;
Matches 226; Conservative 19; Mismatches 28; Indels 0; Gaps 0;

QY 1 MKKTQWTLTCIYLQLLFNPLVKTGICRRVTVNNVKKVDTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQWTLTCIYLQLLFNPLVKTGICRRVTVNNVKKVDTKLVANLPKDYMITLKYVAG 60

QY 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIDKLNVIVDDLVCEVKENSS 120
DB 61 MDVLPSCWLRDMVQLSLTLTLDDKFSNISEGLSNYSIIDKLNVIVDDLVCEENAP 120

QY 121 KDLKSKFKSPERLFTPEEPFRINRSIDAPKDFVVASETSDCVSVSTLSPEKDSRVST 180
DB 121 KNIKESPKRPETRGFTPEEPFSIFNRSIDAPKDFVVASETSDCVSVSTLSPEKDSRVST 180

QY 181 KPFMLPPVAASLRNDSSSNRKAQNPQDSSLHWAMALPALFSLIIGFAGALYWKKR 240
DB 181 KPFMLPPVAASLRNDSSSNRKAQNPQDSSLHWAMALPALFSLIIGFAGALYWKKK 240

QY 241 QPSLTRAVENTQINEEDNEISMLQEKERFQEV 273
DB 241 QSSLTRAVENTQINEEDNEISMLQEKERFQEV 273

RESULT 13
SCF_SHEEP
ID SCF_SHEEP STANDARD; PRT; 267 AA.
AC P79368; Q28591;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Kit ligand precursor (c-kit ligand) (Stem cell factor) (SCF) (Mast
DE cell growth factor) (MGF) (Fragment).
GN Name=KITLG; Synonyms=SCF;
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP NUCLEOTIDE SEQUENCE OF 8-267.
RX TISSUE=Ovarian follicle;
RC MEDLINE=96413880; PubMed=8662240; DOI=10.1007/s003359900142;
RA Tisdall D.J., Quirk L.D., Galloway S.M.;
RT "Ovine stem cell factor gene is located within a syntenic group on
RT chromosome 3 conserved across mammalian species.";
RL Mamm. Genome 7:472-473(1996).
RN [2]
RP NUCLEOTIDE SEQUENCE OF 1-202.
RX MEDLINE=99263397; PubMed=10328863; DOI=10.1006/cyto.1998.0430;
RA McInnes C.J., Deane D., Thomson J., Broad A., Haig D.M.;
RT "The cloning and expression of the cDNA for ovine stem cell factor
RT (kit-ligand) and characterization of its in vitro haematopoietic
RT activity.";
RL Cytokine 11:249-256(1999).
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins (By similarity).
CC -!- SUBUNIT: Homodimer, non-covalently linked (probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a

```

CC      secreted soluble form (By similarity).
CC      -!- PTM: A soluble form is produced by proteolytic processing of the
CC      extracellular domain (By similarity).
CC      -!- SIMILARITY: Belongs to the SCF family.
CC      -----
CC      This Swiss-Prot entry is copyright. It is produced through a collaboration
CC      between the Swiss Institute of Bioinformatics and the EMBL outstation
CC      the European Bioinformatics Institute. There are no restrictions on its
CC      use as long as its content is in no way modified and this statement is not
CC      removed.
CC      -----
CC      EMBL; U89874; AAB49491.1; -; mRNA.
CC      EMBL; Z50743; CAA90620.1; -; mRNA.
CC      PIR; S58313; S58313.
CC      SMR; P79368; 29-161.
CC      InterPro; IPR012351; Cytokine_4_hlx.
CC      InterPro; IPR003452; SCF.
CC      PANTHER; PTHR11574; SCF; 1.
CC      Pfam; PF02404; SCF; 1.
CC      Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
CC      SIGNAL 1 25
CC      CHAIN 26 >267
CC      TOPO_DOM 26 215
CC      TRANSMEM 216 238
CC      TOPO_DOM 239 >267
CC      CARBOHYD 90 90
CC      CARBOHYD 97 97
CC      CARBOHYD 145 145
CC      CARBOHYD 196 196
CC      DISULFID 29 114
CC      DISULFID 68 164
CC      NON_TER 267
CC      SEQUENCE 267 AA; 30149 MW; 9D9D959E4B9EC841 CRC64;

Query Match      82.8%; Score 1156.5; DB 1; Length 267;
Best Local Similarity 85.0%; Pred. No. 3.9e-80; Mismatches 20; Indels 1; Gaps 1;
Matches 227; Conservative 19;

Qy      1 MKKTQTWLTCTIYLQLLFPNVLKTEGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
Db      1 MKKTQTWLTCTIYLQLLFPNVLKTEGICRNRVTDDVDVTKLVANLPKDYMITLKYVPG 60

Qy      61 MDVLPSCWISSEMVVQLSDSLTDLDFKPSNISSEGLSNYSIIDKLVNIVDDLVCECKENSS 120
Db      61 MDVLPSCWISSEMVVQLSVSLTDLDFKPSNISSEGLSNYSIIDKLVNIVDDLVCECKEHSF 120

Qy      121 KDLKSPKSPRLPTPEEPRIFNRSIDAKDF-VVASETSDCVVSTLSPEKDSRVSV 179
Db      121 ENVKSSKSPRLPTPEEPRIFNRSIDAKDFVVAIVASTVSECVISSTSPKDSRVSV 180

Qy      180 TKPFMLPPVAASSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWK 239
Db      181 TKPFMLPPVAASSLRNDSSSNRKASNIENISLQWAAVALPAPFSLVIGFAFGALYWK 240

Qy      240 QPSLTRAVENTIQINEEDNEISMLQEK 266
Db      241 KQPNLRTVENRQINEEDNEISMLQEK 267

RESULT 14
Q54A14 RAT PRELIMINARY; PRT; 245 AA.
AC Q54A14.
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Stem cell factor KL-2.
GN Name=scf;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Rattus.
NCBI_TaxID=10116;

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RN      NUCLEOTIDE SEQUENCE.
RP      STRAIN=Sprague Dawley; TISSUE=Embryonic kidney;
RX      MEDLINE=22831116; PubMed=12951073; DOI=10.1016/j.bbrc.2003.08.025;
RA      Hirokawa Y.S., Watanabe M., Shiraiishi T.;
RT      "The 3'UTR of stem cell factor suppresses protein expression from a
RT      cotransfected vector.";
RL      Biochem. Biophys. Res. Commun. 309:469-474 (2003).
DR      EMBL; AB105879; BAC84980.1; -; mRNA.
SQ      SEQUENCE 245 AA; 27681 MW; 9615130876AC9D52 CRC64;

Query Match      71.0%; Score 992; DB 2; Length 245;
Best Local Similarity 71.8%; Pred. No. 1.3e-67;
Matches 196; Conservative 18; Mismatches 31; Indels 28; Gaps 1;

Qy      1 MKKTQTWLTCTIYLQLLFPNVLKTEGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
Db      1 MKKTQTWLTCTIYLQLLFPNVLKTEGICRNPVTDNDVDVTKLVANLPNDYMITLNYVAG 60

Qy      61 MDVLPSCWISSEMVVQLSDSLTDLDFKPSNISSEGLSNYSIIDKLVNIVDDLVCECKENSS 120
Db      61 MDVLPSCWLRDMVTHLSVSLTDLDFKPSNISSEGLSNYSIIDKLVNIVDDLVACMEENAP 120

Qy      121 KDLKSPKSPRLPTPEEPRIFNRSIDAKDFVVAASETSDCVVSTLSPEKDSRVSV 180
Db      121 KVKESLKKPRTNFTPEEFSIFNRSIDAKDFPMVASDTSDCVLSSTLGPEKG----- 174

Qy      181 KPFPMLPPVAASSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWK 240
Db      175 -----KAAKSPEDPGLQWTNALPALISLVIGFAFGALYWK 212

Qy      241 QPSLTRAVENTIQINEEDNEISMLQEKEREFOEV 273
Db      213 QSSLTRAVENTIQINEEDNEISMLQEKEREFOEV 245

RESULT 15
Q64384 9MURI PRELIMINARY; PRT; 208 AA.
AC Q64384.
DT 01-NOV-1996 (TrEMBLrel. 01, Created)
DT 01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE C-kit ligand C-terminally truncated secreted form KL-sld.
GN Name=Kitl;
OS Mus sp.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Mus.
NCBI_TaxID=10095;

RN      NUCLEOTIDE SEQUENCE.
RP      MEDLINE=92333001; PubMed=1378327;
RA      Huang E.J., Nocka K.H., Buck J., Besmer P.;
RT      "Differential expression and processing of two cell associated forms
RT      of the kit-ligand: KL-1 and KL-2.";
RL      Mol. Biol. Cell 3:349-362(1992).
DR      EMBL; S40536; AAB22556.2; -; mRNA.
DR      HSP; P21583; 1SCF.
DR      SMR; Q64384; 29-159.
DR      MGI; MGI:96974; Kitl.
DR      GO; GO:0016020; P:stem cell factor receptor binding; IEA.
DR      GO; GO:0005173; C:membrane; IEA.
DR      GO; GO:0007155; P:cell adhesion; IEA.
DR      InterPro; IPR003452; SCF.
DR      Pfam; PF02404; SCF; 1.
SQ      SEQUENCE 208 AA; 23222 MW; C74DD639566EB817 CRC64;

Query Match      61.9%; Score 865; DB 2; Length 208;
Best Local Similarity 82.8%; Pred. No. 5.2e-58;
Matches 169; Conservative 16; Mismatches 19; Indels 0; Gaps 0;

Qy      1 MKKTQTWLTCTIYLQLLFPNVLKTEGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60

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Db      1 MKKTQWIIICIIYQLLLFNPLVKKEICGNPVTDNVXDITKLVANLEPNFYMITLNYVAG 60
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Db      61 MDVLPSCWLRDMVQLSLSTLLDKFSNISSEGLSNYSIIDKLGKIYVDDLVCMEENAP 120
Qy      121 KOLKSFKSPERLFTPEEPFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180
Db      121 KNIKESPKRPETRSFTPEEPFSIFNRSIDAFKDFMVASDTSDCVLSSTLGPEKDSRVSVT 180
Qy      181 KPFLPPVAASSLRNDSSSNRKA 204
Db      181 KPFLPPVAASSLRNDSSSNRKA 204
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Search completed: February 22, 2006, 18:19:21
Job time : 141.636 secs

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 22, 2006, 18:19:42 ; Search time 33.0909 Seconds
(without alignments)
682.074 Million cell updates/sec

Title: US-10-620-642-61

Perfect score: 1397

Sequence: 1 MKKTQTWLTCTIYLOLLFN.....NEEDNEISMLQEKERFQEV 273

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents AA.*

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2: /cgn2_6/ptodata/1/1aa/6 COMB.pep.*

3: /cgn2_6/ptodata/1/1aa/H COMB.pep.*

4: /cgn2_6/ptodata/1/1aa/pCTUS COMB.pep.*

5: /cgn2_6/ptodata/1/1aa/RE COMB.pep.*

6: /cgn2_6/ptodata/1/1aa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1397	100.0	273	1	US-08-220-379B-2
2	1397	100.0	273	1	US-08-628-428-9
3	1397	100.0	273	2	US-08-482-918-49
4	1397	100.0	273	2	US-08-482-918-61
5	1397	100.0	273	2	US-09-224-681-49
6	1397	100.0	273	2	US-09-224-681-61
7	1397	100.0	273	2	US-08-336-728A-48
8	1397	100.0	273	2	US-08-336-728A-49
9	1397	100.0	273	2	US-08-336-728A-61
10	1397	100.0	273	2	US-09-635-251-49
11	1397	100.0	273	2	US-09-635-251-61
12	1397	100.0	273	2	US-09-224-683-49
13	1397	100.0	273	2	US-09-224-683-61
14	1397	100.0	273	2	US-09-604-325A-49
15	1397	100.0	273	2	US-09-604-325A-61
16	1397	100.0	290	2	US-09-949-016-9393
17	1397	100.0	290	2	US-09-949-016-9394
18	1392	98.6	273	2	US-08-482-918-48
19	1392	99.6	273	2	US-09-224-681-48
20	1392	99.6	273	2	US-09-635-251-48
21	1392	99.6	273	2	US-09-224-683-48
22	1392	99.6	273	2	US-09-604-325A-48
23	1381	98.9	273	2	US-08-482-918-50
24	1381	98.9	273	2	US-09-224-681-50
25	1381	98.9	273	2	US-09-635-251-50
26	1381	98.9	273	2	US-09-224-683-50
27	1381	98.9	273	2	US-09-604-325A-50

28	1378	98.6	273	2	US-08-336-728A-50	Sequence 50, Appl
29	1265	90.6	248	1	US-08-955-848A-82	Sequence 82, Appl
30	1232.5	88.2	266	2	US-08-482-918-57	Sequence 57, Appl
31	1232.5	88.2	266	2	US-09-224-681-57	Sequence 57, Appl
32	1232.5	88.2	266	2	US-08-336-728A-57	Sequence 57, Appl
33	1232.5	88.2	266	2	US-09-635-251-57	Sequence 57, Appl
34	1232.5	88.2	266	2	US-09-224-683-57	Sequence 57, Appl
35	1232.5	88.2	266	2	US-09-604-325A-57	Sequence 57, Appl
36	1231	88.1	245	2	US-08-482-918-63	Sequence 63, Appl
37	1231	88.1	245	2	US-09-224-681-63	Sequence 63, Appl
38	1231	88.1	245	2	US-08-336-728A-63	Sequence 63, Appl
39	1231	88.1	245	2	US-09-635-251-63	Sequence 63, Appl
40	1231	88.1	245	2	US-09-224-683-63	Sequence 63, Appl
41	1231	88.1	245	2	US-09-604-325A-63	Sequence 63, Appl
42	1231	88.1	262	2	US-09-949-016-9391	Sequence 9391, Ap
43	1231	88.1	262	2	US-09-949-016-9392	Sequence 9392, Ap
44	1202.5	86.1	274	2	US-08-336-728A-52	Sequence 52, Appl
45	1200.5	85.9	274	2	US-09-485-639D-2	Sequence 2, Appl

ALIGNMENTS

RESULT 1
US-08-220-379B-2
; Sequence 2, Application US/08220379B
; Patent No. 5525708
; GENERAL INFORMATION:
; APPLICANT: No. 5525708ka, Karl
; APPLICANT: Lobell, Robert B
; TITLE OF INVENTION: STABILIZED DIMER OF KIT LIGAND
; NUMBER OF SEQUENCES: 7
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Neave
; STREET: 1251 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: United States of America
; ZIP: 10020
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/220,379B
; FILING DATE: 28-MAR-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Haley Jr, James F
; REGISTRATION NUMBER: 27,794
; REFERENCE/DOCKET NUMBER: CytoMed/2
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 212-596-9000
; TELEFAX: 212-596-9090
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: cleavage site
; LOCATION: 164..165
US-08-220-379B-2

Query Match 100.0%; Score 1397; DB 1; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTIYLOLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMTILKYVPG 60
DB 1 MKKTQTWLTCTIYLOLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMTILKYVPG 60

QY 61 MDVLPSCWISVMVQLSDSLDLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
DB 61 MDVLPSCWISVMVQLSDSLDLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSFKSPERLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
DB 121 KDLKSFKSPERLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
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DB 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
QY 241 QPSLTRAVENTIQUINEEDNEISMLOEKEREFOEV 273
DB 241 QPSLTRAVENTIQUINEEDNEISMLOEKEREFOEV 273

RESULT 2

US-08-628-428-9
; Sequence 9, Application US/08628428
; Patent No. 5885962
; GENERAL INFORMATION:
; APPLICANT: Lu, Hsiang
; TITLE OF INVENTION: SCF ANALOG COMPOSITIONS AND METHODS
; NUMBER OF SEQUENCES: 9
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Amgen Inc.
; STREET: 1840 DeHavilland Drive
; CITY: Thousand Oaks
; STATE: CA
; COUNTRY: USA
; ZIP: 91320-1789
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/628,428
; FILING DATE: 05-APR-1996
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Knight, Matthew W
; REGISTRATION NUMBER: 36,846
; REFERENCE/DOCKET NUMBER: A-400
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Protein
; LOCATION: 1..273
; OTHER INFORMATION: /note= "NOTE: Mature full length
; OTHER INFORMATION: 1-248 SCF protein begins at amino acid 26; amino acid 1-25
; OTHER INFORMATION: include Met and leader sequences for membrane band form of hu
; OTHER INFORMATION: recombinant SCF."
US-08-628-428-9

Query Match 100.0%; Score 1397; DB 1; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTIYQLQLLFNPLVKTEGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTIYQLQLLFNPLVKTEGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISVMVQLSDSLDLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
DB 61 MDVLPSCWISVMVQLSDSLDLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120

QY 121 KDLKSFKSPERLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
DB 121 KDLKSFKSPERLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
QY 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
DB 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
QY 241 QPSLTRAVENTIQUINEEDNEISMLOEKEREFOEV 273
DB 241 QPSLTRAVENTIQUINEEDNEISMLOEKEREFOEV 273

RESULT 3

US-08-482-918-49
; Sequence 49, Application US/08482918
; Patent No. 6207417
; GENERAL INFORMATION:
; APPLICANT: Zaebo, Krisztina M.
; APPLICANT: Bosseiman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/482,918
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/33005
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-482-918-49

Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTIYQLQLLFNPLVKTEGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTIYQLQLLFNPLVKTEGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISVMVQLSDSLDLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
DB 61 MDVLPSCWISVMVQLSDSLDLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSFKSPERLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
DB 121 KDLKSFKSPERLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180

QY 181 KPFLPVPVAAASIRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240
DB 181 KPFLPVPVAAASIRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240
QY 241 QPSLTRAVENTIOINEEDNEISMLOKEREFOEV 273
DB 241 QPSLTRAVENTIOINEEDNEISMLOKEREFOEV 273

RESULT 4
US-08-482-918-61
; Sequence 61, Application US/08482918
; Patent No. 6207417
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/482,918
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/33005
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-482-918-61

Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTLYQLLLFNPVKTEGICRNVNKKDVTKLVANLPKDYMTILKYVPG 60
DB 1 MKKTQTWLTCTLYQLLLFNPVKTEGICRNVNKKDVTKLVANLPKDYMTILKYVPG 60
QY 61 MDVLPFCHWISWVQVLSLTDLLDKFSNI SEGLSNYSIIDKLVNI VDDLVCEKNS 120
DB 61 MDVLPFCHWISWVQVLSLTDLLDKFSNI SEGLSNYSIIDKLVNI VDDLVCEKNS 120
QY 121 KDLKSKFSPRLPTPEFFRIFNRSIDAFKDFVVASSETSCVSSITLSPKDSRVSVT 180
DB 121 KDLKSKFSPRLPTPEFFRIFNRSIDAFKDFVVASSETSCVSSITLSPKDSRVSVT 180
QY 181 KPFLPVPVAAASIRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240
DB 181 KPFLPVPVAAASIRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240

QY 241 QPSLTRAVENTIOINEEDNEISMLOKEREFOEV 273
DB 241 QPSLTRAVENTIOINEEDNEISMLOKEREFOEV 273

RESULT 5
US-09-224-681-49
; Sequence 49, Application US/09224681
; Patent No. 6207454
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Method for Enhancing the Efficiency of Gene
; TITLE OF INVENTION: Transfer with Stem Cell Factor (SCF) Polypeptide
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,681
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX:
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-224-681-49

Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134; Indels 0; Gaps 0;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTIYQLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTIYQLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISWMMVQVLSLTDLLDKFNSISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
DB 61 MDVLPSCWISWMMVQVLSLTDLLDKFNSISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSKFSPERLFTPEEPFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180
DB 121 KDLKSKFSPERLFTPEEPFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWK 240
DB 181 KPFMLPPVAASLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWK 240
QY 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273
DB 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273

RESULT 6
US-09-224-681-61
; Sequence 61, Application US/09224681
; Patent No. 6207454
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosseiman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Method for Enhancing the Efficiency of Gene
; TITLE OF INVENTION: Transfer with Stem Cell Factor (SCF) Polypeptide
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,681
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990

; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX:
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-224-681-61
Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134; Indels 0; Gaps 0;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTIYQLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTIYQLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISWMMVQVLSLTDLLDKFNSISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
DB 61 MDVLPSCWISWMMVQVLSLTDLLDKFNSISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSKFSPERLFTPEEPFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180
DB 121 KDLKSKFSPERLFTPEEPFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWK 240
DB 181 KPFMLPPVAASLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWK 240
QY 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273
DB 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273
RESULT 7
US-08-336-728A-48
; Sequence 48, Application US/08336728A
; Patent No. 6207802
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosseiman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/336,728A
; FILING DATE: 09-NOV-1994
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255

;; FILING DATE: 25-NOV-1992
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/589,701
;; FILING DATE: 01-OCT-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/573,616
;; FILING DATE: 24-AUG-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/537,198
;; FILING DATE: 11-JUN-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/422,383
;; FILING DATE: 16-OCT-1989
;; ATTORNEY/AGENT INFORMATION:
;; NAME: Clough, David W.
;; REGISTRATION NUMBER: 36,107
;; REFERENCE/DOCKET NUMBER: 01017/32956
;; TELECOMMUNICATION INFORMATION:
;; TELEPHONE: 312/474-6300
;; TELEFAX: 312/474-0448
;; TELEX: 25-3856
;; INFORMATION FOR SEQ ID NO: 48:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 273 amino acids
;; TYPE: amino acid
;; TOPOLOGY: linear
;; MOLECULE TYPE: protein
US-08-336-728A-48

Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNRTNNVNDVTKLVANLPKDYMTLKYPVG 60
DB 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNRTNNVNDVTKLVANLPKDYMTLKYPVG 60
QY 61 MDVLPCHWISWMVQVLSLTDLLDKFSNISGLSNYSIIDKLVNIVDDLVECVKENS 120
DB 61 MDVLPCHWISWMVQVLSLTDLLDKFSNISGLSNYSIIDKLVNIVDDLVECVKENS 120
QY 121 KDLKSKSPKPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
DB 121 KDLKSKSPKPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASSLRNDSSSNRKNKPNPGDSSLHWAAMALPALFSLIIIGFAGALYWKCR 240
DB 181 KPFMLPPVAASSLRNDSSSNRKNKPNPGDSSLHWAAMALPALFSLIIIGFAGALYWKCR 240
QY 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273
DB 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273

RESULT 8
US-08-336-728A-49
; Sequence 49, Application US/08336728A
; Patent No. 6207802
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:

;; MEDIUM TYPE: Floppy disk
;; COMPUTER: IBM PC compatible
;; OPERATING SYSTEM: PC-DOS/MS-DOS
;; SOFTWARE: PatentIn Release #1.0, Version #1.30
;; CURRENT APPLICATION DATA:
;; APPLICATION NUMBER: US/08/336,728A
;; FILING DATE: 09-NOV-1994
;; CLASSIFICATION: 424
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/982,255
;; FILING DATE: 25-NOV-1992
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/589,701
;; FILING DATE: 01-OCT-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/573,616
;; FILING DATE: 24-AUG-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/537,198
;; FILING DATE: 11-JUN-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/422,383
;; FILING DATE: 16-OCT-1989
;; ATTORNEY/AGENT INFORMATION:
;; NAME: Clough, David W.
;; REGISTRATION NUMBER: 36,107
;; REFERENCE/DOCKET NUMBER: 01017/32956
;; TELECOMMUNICATION INFORMATION:
;; TELEPHONE: 312/474-6300
;; TELEFAX: 312/474-0448
;; TELEX: 25-3856
;; INFORMATION FOR SEQ ID NO: 49:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 273 amino acids
;; TYPE: amino acid
;; STRANDEDNESS: single
;; TOPOLOGY: linear
;; MOLECULE TYPE: protein
US-08-336-728A-49

Query Match 100.0%; Score 1397; DB 2; Length 273;

Best Local Similarity 100.0%; Pred. No. 4.9e-134;

Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNRTNNVNDVTKLVANLPKDYMTLKYPVG 60

DB 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNRTNNVNDVTKLVANLPKDYMTLKYPVG 60

QY 61 MDVLPCHWISWMVQVLSLTDLLDKFSNISGLSNYSIIDKLVNIVDDLVECVKENS 120

DB 61 MDVLPCHWISWMVQVLSLTDLLDKFSNISGLSNYSIIDKLVNIVDDLVECVKENS 120

QY 121 KDLKSKSPKPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180

DB 121 KDLKSKSPKPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180

QY 181 KPFMLPPVAASSLRNDSSSNRKNKPNPGDSSLHWAAMALPALFSLIIIGFAGALYWKCR 240

DB 181 KPFMLPPVAASSLRNDSSSNRKNKPNPGDSSLHWAAMALPALFSLIIIGFAGALYWKCR 240

QY 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273

DB 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273

RESULT 9

US-08-336-728A-61

; Sequence 61, Application US/08336728A

; Patent No. 6207802

; GENERAL INFORMATION:

; APPLICANT: Zeebo, Kristina M.

; APPLICANT: Bosselman, Robert A.

; APPLICANT: Suggs, Sidney V.

;; APPLICANT: Martin, Francis H.
;; TITLE OF INVENTION: Stem Cell Factor
;; NUMBER OF SEQUENCES: 104
;; CORRESPONDENCE ADDRESS:
;; STREET: 6300 Sears Tower, 233 South Wacker Drive
;; CITY: Chicago
;; STATE: Illinois
;; COUNTRY: United States of America
;; ZIP: 60606-6402
;; COMPUTER READABLE FORM:
;; MEDIUM TYPE: Floppy disk
;; COMPUTER: IBM PC compatible
;; OPERATING SYSTEM: PC-DOS/MS-DOS
;; SOFTWARE: PatentIn Release #1.0, Version #1.30
;; CURRENT APPLICATION DATA:
;; FILING DATE: 09-NOV-1994
;; CLASSIFICATION: 424
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/982,255
;; FILING DATE: 25-NOV-1992
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/589,701
;; FILING DATE: 01-OCT-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/573,616
;; FILING DATE: 24-AUG-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/537,198
;; FILING DATE: 11-JUN-1990
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/422,383
;; FILING DATE: 16-OCT-1989
;; ATTORNEY/AGENT INFORMATION:
;; NAME: Clough, David W.
;; REGISTRATION NUMBER: 36,107
;; REFERENCE/DOCKET NUMBER: 01017/32956
;; TELEPHONE: 312/474-6300
;; TELEFAX: 312/474-0448
;; TELEX: 25-3856
;; INFORMATION FOR SEQ ID NO: 61:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 273 amino acids
;; TYPE: amino acid
;; TOPOLOGY: linear
;; MOLECULE TYPE: protein
;; US-08-336-728A-61

Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNVNNDVTKLVANLPKDYMTILKYVPG 60
DB 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNVNNDVTKLVANLPKDYMTILKYVPG 60
QY 61 MDVLPSCWISBMVQVLSLTDLLDKFSNISEGLSNYSIIDKLNIIVDDLVECVKENS 120
DB 61 MDVLPSCWISBMVQVLSLTDLLDKFSNISEGLSNYSIIDKLNIIVDDLVECVKENS 120
QY 121 KDLKSKFSKPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVSSTLSPEKDSRVST 180
DB 121 KDLKSKFSKPEPLFTPEFFRIFNRSIDAFKDFVVASETSDCVSSTLSPEKDSRVST 180
QY 181 KPMPLPPVAASSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYKKR 240
DB 181 KPMPLPPVAASSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYKKR 240
QY 241 QPSLITRAVENIQINEEDNEISMLQEKERFQEV 273
DB 241 QPSLITRAVENIQINEEDNEISMLQEKERFQEV 273

RESULT 10

US-09-635-251-49
; Sequence 49, Application US/09635251
; Patent No. 6759215
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; Rosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshhall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/635,251
; FILING DATE: 07-AUG-2000
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,182
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 04-OCT-1991
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/32957A
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 49:
US-09-635-251-49

Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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DB 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNVNNDVTKLVANLPKDYMTILKYVPG 60
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Db 61 MDVLPSCWISSEMVQLSDSLDLDKFNISSEGLSNYSIIIDKLVNIVDDLVECVKNS 120
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Db 121 KDLKSKFSKSPPELFTPEEFRIENRSDAFKDFVVASSETSCVVSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
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Db 241 QPSLTRAveniQINEEDNEISMLOKEREFOEV 273
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US-09-635-251-61
; Sequence 61, Application US/09635251
; Patent No. 6759215
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/635,251
; FILING DATE: 07-Aug-2000
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,182
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 04-OCT-1991
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/32957A
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear

; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 61:
US-09-635-251-61
Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134; Indels 0; Gaps 0;
Matches 273; Conservative 0; Mismatches 0;
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Db 181 KPFMLPPVAASSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
QY 241 QPSLTRAveniQINEEDNEISMLOKEREFOEV 273
Db 241 QPSLTRAveniQINEEDNEISMLOKEREFOEV 273
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US-09-224-683-49
; Sequence 49, Application US/09224683
; Patent No. 6841147
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,683
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990

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; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35136
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-224-683-49

Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 1 MKKTQTWLTCTIYQLQLLFPNPLVKTEGICRNRVTNNVKDVKLVANLKDYMILKYVPG 60
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Db 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIYVDDLVECVKENS 120
QY 121 KDLKSKFSKPEPLFTPEEPRIFNRSIDAFKDFVVASETSCVVSSTLSPEKDSRVST 180
Db 121 KDLKSKFSKPEPLFTPEEPRIFNRSIDAFKDFVVASETSCVVSSTLSPEKDSRVST 180
QY 181 KPFMLPPVAASLRNDSSSNRKAQKPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240
Db 181 KPFMLPPVAASLRNDSSSNRKAQKPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240
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Db 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273

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RESULT 13
US-09-224-683-61
; Sequence 61, Application US/09224683
; Patent No. 684147
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,683

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; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35136
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-224-683-61

Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIYVDDLVECVKENS 120
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Db 121 KDLKSKFSKPEPLFTPEEPRIFNRSIDAFKDFVVASETSCVVSSTLSPEKDSRVST 180
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RESULT 14
US-09-604-325A-49
; Sequence 49, Application US/09604325A
; Patent No. 6852313
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; Bosselman, Robert A.

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;; Suggs, Sidney V.
;; Martin, Francis H.
;; TITLE OF INVENTION: Stem Cell Factor
;; NUMBER OF SEQUENCES: 104
;; CORRESPONDENCE ADDRESS:
;; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
;; STREET: 6300 Sears Tower, 233 South Wacker Drive
;; CITY: Chicago
;; STATE: Illinois
;; COUNTRY: United States of America
;; ZIP: 60606-6402
;;
;; COMPUTER READABLE FORM:
;; MEDIUM TYPE: Floppy disk
;; COMPUTER: IBM PC compatible
;; OPERATING SYSTEM: PC-DOS/MS-DOS
;; SOFTWARE: Patent In Release #1.0, Version #1.30
;; CURRENT APPLICATION DATA:
;; APPLICATION NUMBER: US/09/604,325A
;; FILING DATE: 17-Jun-2002
;; CLASSIFICATION: <Unknown>
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;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 07/982,255
;; FILING DATE: 25-NOV-1992
;; APPLICATION NUMBER: 07/589,701
;; FILING DATE: 01-OCT-1990
;; APPLICATION NUMBER: 07/573,616
;; FILING DATE: 24-AUG-1990
;; APPLICATION NUMBER: 07/537,198
;; FILING DATE: 11-JUN-1990
;; APPLICATION NUMBER: 07/422,383
;; FILING DATE: 16-OCT-1989
;;
;; ATTORNEY/AGENT INFORMATION:
;; NAME: Clough, David W.
;; REGISTRATION NUMBER: 36,107
;; REFERENCE/DOCKET NUMBER: 01017/32953
;; TELECOMMUNICATION INFORMATION:
;; TELEPHONE: 312/474-6300
;; TELEFAX: 312/474-0448
;; TELEX: 25-3856
;;
;; INFORMATION FOR SEQ ID NO: 49:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 273 amino acids
;; TYPE: amino acid
;; STRANDEDNESS: single
;; TOPOLOGY: linear
;; MOLECULE TYPE: protein
;; SEQUENCE DESCRIPTION: SEQ ID NO: 49:

US-09-604-325A-49
Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Db 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
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; Sequence 61, Application US/09604325A
; Patent No. 6852313
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristztina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
;
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/604,325A
; FILING DATE: 17-Jun-2002
; CLASSIFICATION: <Unknown>
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; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
;
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/32953
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
;
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 61:

US-09-604-325A-61
Query Match 100.0%; Score 1397; DB 2; Length 273;
Best Local Similarity 100.0%; Pred. No. 4.9e-134;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Db 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
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Qy 241 QPSLTRAVENTIQINEEDNEISMLQEKEREFQEV 273
Db 241 QPSLTRAVENTIQINEEDNEISMLQEKEREFQEV 273

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Job time : 34.0909 secs

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 22, 2006, 18:20:42 ; Search time 109.05 Seconds
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Title: US-10-620-642-61

Perfect score: 1397

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Total number of hits satisfying chosen parameters: 1867569

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Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	1397	100.0	273	3	US-09-005-243-61 Sequence 61, Appl
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4	1397	100.0	273	3	US-09-224-683-61 Sequence 61, Appl
5	1397	100.0	273	4	US-10-175-608-49 Sequence 49, Appl
6	1397	100.0	273	4	US-10-175-608-61 Sequence 61, Appl
7	1397	100.0	273	5	US-10-620-642-49 Sequence 49, Appl
8	1397	100.0	273	5	US-10-620-642-61 Sequence 61, Appl
9	1392	99.6	273	3	US-09-005-243-48 Sequence 48, Appl
10	1392	99.6	273	3	US-09-224-683-48 Sequence 48, Appl
11	1392	99.6	273	4	US-10-175-608-48 Sequence 48, Appl
12	1392	99.6	273	5	US-10-620-642-48 Sequence 48, Appl
13	1381	98.9	273	3	US-09-005-243-50 Sequence 50, Appl
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15	1381	98.9	273	4	US-10-175-608-50 Sequence 50, Appl
16	1381	98.9	273	5	US-10-620-642-50 Sequence 50, Appl
17	1232.5	88.2	266	3	US-09-005-243-57 Sequence 57, Appl
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33	1179.5	84.4	271	5	US-10-620-642-52 Sequence 52, Appl
34	1173	84.0	273	3	US-09-005-243-53 Sequence 53, Appl
35	1173	84.0	273	3	US-09-224-683-53 Sequence 53, Appl
36	1173	84.0	273	4	US-10-175-608-53 Sequence 53, Appl
37	1173	84.0	273	5	US-10-620-642-53 Sequence 53, Appl
38	1158	82.9	273	3	US-09-005-243-42 Sequence 42, Appl
39	1158	82.9	273	3	US-09-224-683-42 Sequence 42, Appl
40	1158	82.9	273	4	US-10-175-608-42 Sequence 42, Appl
41	1158	82.9	273	5	US-10-620-642-42 Sequence 42, Appl
42	1157	82.8	273	3	US-09-005-243-55 Sequence 55, Appl
43	1157	82.8	273	3	US-09-224-683-55 Sequence 55, Appl
44	1157	82.8	273	4	US-10-132-345-4 Sequence 4, Appl
45	1157	82.8	273	4	US-10-175-608-55 Sequence 55, Appl

ALIGNMENTS

RESULT 1
US-09-005-243-49
; Sequence 49, Application US/09005243
; Patent No. US20020018763A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/005,243
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/34465

```
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-005-243-49

Query Match 100.0%; Score 1397; DB 3; Length 273;
Best Local Similarity 100.0%; Pred. No. 8.5e-122;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNVKDVKLVANLPKDYMITLKYYPG 60
DB 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNVKDVKLVANLPKDYMITLKYYPG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSFKSPPEPLFTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
DB 121 KDLKSFKSPPEPLFTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
QY 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAPGALYWKCR 240
DB 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAPGALYWKCR 240
QY 241 QPSLTRAVENTIQTNEEDNEISMLOEKEREFOEV 273
DB 241 QPSLTRAVENTIQTNEEDNEISMLOEKEREFOEV 273

RESULT 2
US-09-005-243-61
; Sequence 61, Application US/09005243
; Patent No. US20020018763A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESS: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/005,243
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/34465
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-005-243-61

Query Match 100.0%; Score 1397; DB 3; Length 273;
Best Local Similarity 100.0%; Pred. No. 8.5e-122;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNVKDVKLVANLPKDYMITLKYYPG 60
DB 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRRNVTNNVKDVKLVANLPKDYMITLKYYPG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISSEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSFKSPPEPLFTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
DB 121 KDLKSFKSPPEPLFTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVST 180
QY 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAPGALYWKCR 240
DB 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAPGALYWKCR 240
QY 241 QPSLTRAVENTIQTNEEDNEISMLOEKEREFOEV 273
DB 241 QPSLTRAVENTIQTNEEDNEISMLOEKEREFOEV 273

RESULT 3
US-09-224-683-49
; Sequence 49, Application US/09224683
; Patent No. US20020031491A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESS: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/224,683
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/005,893
FILING DATE: 12-JAN-1998
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/449,653
FILING DATE: 24-MAY-1995
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/35136
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 49:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-224-683-49

Query Match 100.0%; Score 1397; DB 3; Length 273;
Best Local Similarity 100.0%; Pred. No. 8.5e-122;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTIYQLQLLPVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTIYQLQLLPVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPFHCWISWVQVLSLTDLLKFSNISEGLSNYSIIDKLVNIVDDLVECVKNS 120
DB 61 MDVLPFHCWISWVQVLSLTDLLKFSNISEGLSNYSIIDKLVNIVDDLVECVKNS 120
QY 121 KDLKSFSPKPEPLTPPEFFRIFNRSIDAFKDFVVASSETSCVSVSTLSPKDSRVSVT 180
DB 121 KDLKSFSPKPEPLTPPEFFRIFNRSIDAFKDFVVASSETSCVSVSTLSPKDSRVSVT 180
QY 181 KPFMLPPVAASLRDSSSSNRKKNPPGDSLSHWAAMPALPFLSLIIGFAPGALYWK 240
DB 181 KPFMLPPVAASLRDSSSSNRKKNPPGDSLSHWAAMPALPFLSLIIGFAPGALYWK 240
QY 241 QPSLTRAVENTIINBEDNEISMLOKEREFEQV 273
DB 241 QPSLTRAVENTIINBEDNEISMLOKEREFEQV 273

RESULT 4
US-09-224-683-61

Sequence 61, Application US/09224683
Patent No. US20020031491A1
GENERAL INFORMATION:
APPLICANT: Zeebo, Kristina M.
APPLICANT: Bosselman, Robert A.
APPLICANT: Suggs, Sidney V.
APPLICANT: Martin, Francis H.
TITLE OF INVENTION: Stem Cell Factor: Composition Claims
NUMBER OF SEQUENCES: 104
CORRESPONDENCE ADDRESS:
ADDRESSER: Marehall, O'Toole, Gerstein, Murray & Borun
STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/224,683
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/005,893
FILING DATE: 12-JAN-1998
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/449,653
FILING DATE: 24-MAY-1995
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/35136
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 61:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-224-683-61

Query Match 100.0%; Score 1397; DB 3; Length 273;
Best Local Similarity 100.0%; Pred. No. 8.5e-122;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTIYQLQLLPVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTIYQLQLLPVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPFHCWISWVQVLSLTDLLKFSNISEGLSNYSIIDKLVNIVDDLVECVKNS 120

Db 61 MDVLPSCWISSEMVVQLSDSLTDLIDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSKSPKSPRLFTPEEFRIENRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
Db 121 KDLKSKSPKSPRLFTPEEFRIENRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASLRNDSSNNKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKKR 240
Db 181 KPFMLPPVAASLRNDSSNNKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKKR 240
QY 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273
Db 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273

RESULT 5

US-10-175-608-49
; Sequence 49, Application US/10175608
; Publication No. US20040181044A1
; GENERAL INFORMATION:
; APPLICANT: Zsebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402

COMPUTER READABLE FORM:

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/10/175,608
FILING DATE: 16-Oct-2002
CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 09/635,249
FILING DATE: 07-AUG-2000
APPLICATION NUMBER: 09/486,546
FILING DATE: 24-MAY-1995
APPLICATION NUMBER: 08/172,329
FILING DATE: 21-DEC-1993
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/684,535
FILING DATE: 10-APR-1991
APPLICATION NUMBER: 09/589,701
FILING DATE: 10-OCT-1991
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989

ATTORNEY/AGENT INFORMATION:

NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/35199
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 49:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids

; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 49:
US-10-175-608-49

Query Match 100.0%; Score 1397; DB 4; Length 273;
Best Local Similarity 100.0%; Pred. No. 8.5e-122; Indels 0; Gaps 0;
Matches 273; Conservative 0; Mismatches 0;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRRNRTNNVNDVKTKLVANLFDKYMILTKYVPG 60
Db 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRRNRTNNVNDVKTKLVANLFDKYMILTKYVPG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLIDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
Db 61 MDVLPSCWISSEMVVQLSDSLTDLIDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSKSPKSPRLFTPEEFRIENRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
Db 121 KDLKSKSPKSPRLFTPEEFRIENRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASLRNDSSNNKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKKR 240
Db 181 KPFMLPPVAASLRNDSSNNKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKKR 240
QY 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273
Db 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273

RESULT 6

US-10-175-608-61
; Sequence 61, Application US/10175608
; Publication No. US20040181044A1
; GENERAL INFORMATION:

; APPLICANT: Zsebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/175,608
FILING DATE: 16-Oct-2002
CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 09/635,249
FILING DATE: 07-AUG-2000
APPLICATION NUMBER: 09/486,546
FILING DATE: 24-MAY-1995
APPLICATION NUMBER: 08/172,329
FILING DATE: 21-DEC-1993
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/684,535
FILING DATE: 10-APR-1991
APPLICATION NUMBER: 09/589,701
FILING DATE: 10-OCT-1991
APPLICATION NUMBER: 07/573,616

FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/35199
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 61:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 61:
US-10-175-608-61

Query Match 100.0%; Score 1397; DB 4; Length 273;
Best Local Similarity 100.0%; Pred. No. 8.5e-122; Mismatches 0; Indels 0; Gaps 0;
Matches 273; Conservative 0;
QY 1 MKKTQTWLTCTIYQLLLFNPLVKTGICRRNVTNNVDVKLVANLPRDYMILKYVPG 60
DB 1 MKKTQTWLTCTIYQLLLFNPLVKTGICRRNVTNNVDVKLVANLPRDYMILKYVPG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
QY 121 KDLKSKFSKSPRLFTPEEPFRINRSIDAKDFVASETSDCVVSSITLSPKDSRVST 180
DB 121 KDLKSKFSKSPRLFTPEEPFRINRSIDAKDFVASETSDCVVSSITLSPKDSRVST 180
QY 181 KPFMLPPVAASSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240
DB 181 KPFMLPPVAASSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240
QY 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273
DB 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273

RESULT 7
US-10-620-642-49
Sequence 49, Application US/10620642
Publication No. US20050080250A1
GENERAL INFORMATION:
APPLICANT: Zeebo, Kristina M.
Bosselman, Robert A.
Suggs, Sidney V.
Martin, Francis H.
TITLE OF INVENTION: Stem Cell Factor
NUMBER OF SEQUENCES: 104
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/620,642
FILING DATE: 16-Jul-2003

CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/10/175,608
FILING DATE: 16-Oct-2002
APPLICATION NUMBER: 09/635,249
FILING DATE: 07-AUG-2000
APPLICATION NUMBER: 09/486,546
FILING DATE: 24-MAY-1995
APPLICATION NUMBER: 08/172,329
FILING DATE: 21-DEC-1993
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/684,535
FILING DATE: 10-APR-1991
APPLICATION NUMBER: 09/589,701
FILING DATE: 10-OCT-1991
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/35199
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 49:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 49:
US-10-620-642-49
Query Match 100.0%; Score 1397; DB 5; Length 273;
Best Local Similarity 100.0%; Pred. No. 8.5e-122; Mismatches 0; Indels 0; Gaps 0;
Matches 273; Conservative 0;
QY 1 MKKTQTWLTCTIYQLLLFNPLVKTGICRRNVTNNVDVKLVANLPRDYMILKYVPG 60
DB 1 MKKTQTWLTCTIYQLLLFNPLVKTGICRRNVTNNVDVKLVANLPRDYMILKYVPG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIVDDLVECVKENS 120
QY 121 KDLKSKFSKSPRLFTPEEPFRINRSIDAKDFVASETSDCVVSSITLSPKDSRVST 180
DB 121 KDLKSKFSKSPRLFTPEEPFRINRSIDAKDFVASETSDCVVSSITLSPKDSRVST 180
QY 181 KPFMLPPVAASSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240
DB 181 KPFMLPPVAASSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240
QY 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273
DB 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273

RESULT 8
US-10-620-642-61
Sequence 61, Application US/10620642
Publication No. US20050080250A1
GENERAL INFORMATION:
APPLICANT: Zeebo, Kristina M.
Bosselman, Robert A.
Suggs, Sidney V.


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; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 10-APR-1991
; APPLICATION NUMBER: 09/589,701
; FILING DATE: 10-OCT-1991
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 48:
US-10-175-608-48

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Best Local Similarity 99.6%; Pred. No. 2.5e-121;
Matches 272; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRNRVTNNVDVKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRNRVTNNVDVKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPFHCWISBMVQVLSLTDLLDKFNSISGLSNYSIIDKLVNIYVDDLVECVKENS 120
DB 61 MDVLPFHCWISBMVQVLSLTDLLDKFNSISGLSNYSIIDKLVNIYVDDLVECVKENS 120

QY 121 KDLKSFSPKSPRLTPTPEFFRIFNRSIDAFKDFVVASSETSCVVSSTLSPEKDSRVSVT 180
DB 121 KDLKSFSPKSPRLTPTPEFFRIFNRSIDAFKDFVVASSETSCVVSSTLSPEKDSRVSVT 180

QY 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
DB 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240

QY 241 QPSLTRAVENTIQTNEEDNEISMLOKEREFOEV 273
DB 241 QPSLTRAVENTIQTNEEDNEISMLOKEREFOEV 273

RESULT 12
US-10-620-642-48
; Sequence 48, Application US/10620642
; Publication No. US20050080250A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Krisztina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
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; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/620,642
; FILING DATE: 16-Jul-2003
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/10/175,608
; FILING DATE: 16-Oct-2002
; APPLICATION NUMBER: 09/635,249
; FILING DATE: 07-AUG-2000
; APPLICATION NUMBER: 09/486,546
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 10-APR-1991
; APPLICATION NUMBER: 09/589,701
; FILING DATE: 10-OCT-1991
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 48:
US-10-620-642-48

Query Match          99.6%; Score 1392; DB 5; Length 273;
Best Local Similarity 99.6%; Pred. No. 2.5e-121;
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QY 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRNRVTNNVDVKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRNRVTNNVDVKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPFHCWISBMVQVLSLTDLLDKFNSISGLSNYSIIDKLVNIYVDDLVECVKENS 120
DB 61 MDVLPFHCWISBMVQVLSLTDLLDKFNSISGLSNYSIIDKLVNIYVDDLVECVKENS 120

QY 121 KDLKSFSPKSPRLTPTPEFFRIFNRSIDAFKDFVVASSETSCVVSSTLSPEKDSRVSVT 180
DB 121 KDLKSFSPKSPRLTPTPEFFRIFNRSIDAFKDFVVASSETSCVVSSTLSPEKDSRVSVT 180

QY 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
DB 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240

QY 241 QPSLTRAVENTIQTNEEDNEISMLOKEREFOEV 273
DB 241 QPSLTRAVENTIQTNEEDNEISMLOKEREFOEV 273
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RESULT 13
US-09-005-243-50
; Sequence 50, Application US/09005243
; Patent No. US20020018763A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosseman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/005,243
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/34465
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 50:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-005-243-50

Query Match 98.9%; Score 1381; DB 3; Length 273;
Best Local Similarity 98.9%; Pred. No. 2.7e-120;
Matches 270; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 1 MKKQTWLTCTIYQLQLLFPNPKTEGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKQTWLTCTIYQLQLLFPNPKTEGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISMMVQLSDSLTDLKFSNISSEGLSNYSIIIDKLVNIVDDLVECVKENS 120

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Db 61 MDVLPSCWISMMVQLSDSLTDLKFSNISSEGLSNYSIIIDKLVNIVDDLVECVKENS 120
QY 121 KDLKSKFSKSPRLFTPEFFRIFNRSIDAFKDFVVASETSDCVWSSTLSPEKDSRVSVT 180
Db 121 KDLKSKFSKSPRLFTPEFFRIFNRSIDAFKDFVVASETSDCVWSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASSLRNDSSSNRKAQNPPGDSLSLHWAAMALPALPSLIIGFAGALYWKCR 240
Db 181 KPFMLPPVAASSLRNDSSSNRKAQNPPGDSLSLHWAAMALPALPSLIIGFAGALYWKCR 240
QY 241 QPSLTRAVENTIOINEEDNEISMLQEKEREFQEV 273
Db 241 QPSLTRAVENTIOINEEDNEISMLQEKEREFQEV 273

RESULT 14
US-09-224-683-50
; Sequence 50, Application US/09224683
; Patent No. US20020031491A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosseman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,683
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35136
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856

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; INFORMATION FOR SEQ ID NO: 50:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-224-683-50

Query Match      98.9%; Score 1381; DB 3; Length 273;
Best Local Similarity 98.9%; Pred. No. 2.7e-120;
Matches 270; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

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Db 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRNRVTNNVKDVTGLVANLPKDYMITLKYYPG 60

Qy 61 MDVLPSCWISVMVQVLSDSLTLDDKFSNISEGLSNYSIIDKLVNIYDDDLVECVKENS 120
Db 61 MDVLPSCWISVMVQVLSDSLTLDDKFSNISEGLSNYSIIDKLVNIYDDDLVECVKENS 120

Qy 121 KDLKSKFSKSPRLFTPEEPRIFNRSIDAFKDFVAVSETSDCVVSTLSPEKDSRVST 180
Db 121 KDLKSKFSKSPRLFTPEEPRIFNRSIDAFKDFVAVSETSDCVVSTLSPEKDSRVST 180

Qy 181 KPFLMPPVAASLRNDSSSNRKAKNPPGDSLHWAAMALPALFSLIIGFAGALYWKCR 240
Db 181 KPFLMPPVAASLRNDSSSNRKAKNPPGDSLHWAAMALPALFSLIIGFAGALYWKCR 240

Qy 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273
Db 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273

RESULT 15
US-10-175-608-50
; Sequence 50, Application US/10175608
; Publication No. US20040181044A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/175,608
; FILING DATE: 16-Oct-2002
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/635,249
; FILING DATE: 07-AUG-2000
; APPLICATION NUMBER: 09/486,546
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 10-APR-1991
; APPLICATION NUMBER: 09/589,701

; FILING DATE: 10-OCT-1991
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 50:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 50:
US-10-175-608-50

Query Match      98.9%; Score 1381; DB 4; Length 273;
Best Local Similarity 98.9%; Pred. No. 2.7e-120;
Matches 270; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRNRVTNNVKDVTGLVANLPKDYMITLKYYPG 60
Db 1 MKKTQTWLTCTIYLQLLFNPLVKTEGICRNRVTNNVKDVTGLVANLPKDYMITLKYYPG 60

Qy 61 MDVLPSCWISVMVQVLSDSLTLDDKFSNISEGLSNYSIIDKLVNIYDDDLVECVKENS 120
Db 61 MDVLPSCWISVMVQVLSDSLTLDDKFSNISEGLSNYSIIDKLVNIYDDDLVECVKENS 120

Qy 121 KDLKSKFSKSPRLFTPEEPRIFNRSIDAFKDFVAVSETSDCVVSTLSPEKDSRVST 180
Db 121 KDLKSKFSKSPRLFTPEEPRIFNRSIDAFKDFVAVSETSDCVVSTLSPEKDSRVST 180

Qy 181 KPFLMPPVAASLRNDSSSNRKAKNPPGDSLHWAAMALPALFSLIIGFAGALYWKCR 240
Db 181 KPFLMPPVAASLRNDSSSNRKAKNPPGDSLHWAAMALPALFSLIIGFAGALYWKCR 240

Qy 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273
Db 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273

Search completed: February 22, 2006, 18:26:55
Job time : 109.05 secs
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GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: February 22, 2006, 18:22:17 ; Search time 10.5289 Seconds
(without alignments)
386.005 Million cell updates/sec

Title: US-10-620-642-61

Perfect score: 1397

Sequence: 1 MKKTQTWLTCTIYLQLLFN.....NEEDNEISMLQKRRFQEV 273

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 117670 seqs, 14887254 residues

Total number of hits satisfying chosen parameters: 117670

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications_AA_New:*

1: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pap.*
2: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pap.*
3: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pap.*
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8: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1397	100.0	273	6	US-10-353-783-49
2	1397	100.0	273	6	US-10-353-783-61
3	1392	99.6	273	6	US-10-353-783-48
4	1381	98.9	273	6	US-10-353-783-50
5	1265	90.6	248	6	US-10-519-390-24
6	1265	90.6	248	7	US-11-176-830-206
7	1263	90.4	248	7	US-11-176-830-520
8	1263	90.4	248	7	US-11-176-830-537
9	1262	90.3	248	7	US-11-176-830-519
10	1262	90.3	248	7	US-11-176-830-529
11	1262	90.3	248	7	US-11-176-830-536
12	1262	90.3	248	7	US-11-176-830-538
13	1261	90.3	248	7	US-11-176-830-499
14	1261	90.3	248	7	US-11-176-830-500
15	1261	90.3	248	7	US-11-176-830-501
16	1261	90.3	248	7	US-11-176-830-513
17	1261	90.3	248	7	US-11-176-830-517
18	1261	90.3	248	7	US-11-176-830-521
19	1261	90.3	248	7	US-11-176-830-523
20	1261	90.3	248	7	US-11-176-830-527
21	1261	90.3	248	7	US-11-176-830-535
22	1260	90.2	248	7	US-11-176-830-502
23	1260	90.2	248	7	US-11-176-830-506
24	1260	90.2	248	7	US-11-176-830-508
25	1260	90.2	248	7	US-11-176-830-510

ALIGNMENTS

RESULT 1

US-10-353-783-49

; Sequence 49, Application US/10353783

; Publication No. US20050261175A1

; GENERAL INFORMATION:

; APPLICANT: Zeebo, Kristina M.

; Bosseiman, Robert A.

; Suggs, Sidney V.

; Martin, Francis H.

; TITLE OF INVENTION: Stem Cell Factor

; NUMBER OF SEQUENCES: 104

; CORRESPONDENCE ADDRESS:

; ADDRESS: Marshall, O'Toole, Gerstein, Murray & Borun

; STREET: 6300 Sears Tower, 233 South Wacker Drive

; CITY: Chicago

; STATE: Illinois

; COUNTRY: United States of America

; ZIP: 60606-6402

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: Patentin Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/10353,783

; FILING DATE: 28-Jan-2003

; CLASSIFICATION: <Unknown>

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 08/448,729

; FILING DATE: 24-MAY-1995

; APPLICATION NUMBER: 08/172,329

; FILING DATE: 21-DEC-1993

; APPLICATION NUMBER: 07/982,255

; FILING DATE: 25-NOV-1992

; APPLICATION NUMBER: 07/684,535

; FILING DATE: 10-APR-1991

; APPLICATION NUMBER: 07/589,701

; FILING DATE: 01-OCT-1990

; APPLICATION NUMBER: 07/573,616

; APPLICATION NUMBER: 07/537,198

; FILING DATE: 11-JUN-1990

; APPLICATION NUMBER: 07/422,383

; FILING DATE: 16-OCT-1989

; ATTORNEY/AGENT INFORMATION:

; NAME: Clough, David W.

; REGISTRATION NUMBER: 36,107

; REFERENCE/DOCKET NUMBER: 01017/32958A

Sequence 512, App
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Sequence 518, App
Sequence 522, App
Sequence 524, App
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Sequence 505, App
Sequence 507, App
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Sequence 511, App
Sequence 515, App
Sequence 525, App
Sequence 541, App
Sequence 516, App

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34 1260 90.2 248 7 US-11-176-830-534
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36 1260 90.2 248 7 US-11-176-830-540
37 1260 90.2 248 7 US-11-176-830-542
38 1259 90.1 248 7 US-11-176-830-505
39 1259 90.1 248 7 US-11-176-830-507
40 1259 90.1 248 7 US-11-176-830-509
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; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 49:
US-10-353-783-49

Query Match 100.0%; Score 1397; DB 6; Length 273;
Best Local Similarity 100.0%; Pred. No. 8.2e-118;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTCYLQLLLFNPVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
Db 1 MKKTQTWLTCTCYLQLLLFNPVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60

Qy 61 MDVLPCHWISWVQVLSLTDLLDKFSNISGLSNYSIIDKLVINIYDDLVKCKENSS 120
Db 61 MDVLPCHWISWVQVLSLTDLLDKFSNISGLSNYSIIDKLVINIYDDLVKCKENSS 120

Qy 121 KDLKKSFKSPRLPTPEEPRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVST 180
Db 121 KDLKKSFKSPRLPTPEEPRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVST 180

Qy 161 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240
Db 161 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240

Qy 241 QPSLTRAVENTIQTNEEDNEISMLQEKEREFOEV 273
Db 241 QPSLTRAVENTIQTNEEDNEISMLQEKEREFOEV 273

RESULT 2
US-10-353-783-61
; Sequence 61, Application US/10353783
; Publication No. US20050261175A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/353,783
; FILING DATE: 28-Jan-2003
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/448,729
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
```

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;
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 10-APR-1991
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/32958A
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 61:
US-10-353-783-61

Query Match 100.0%; Score 1397; DB 6; Length 273;
Best Local Similarity 100.0%; Pred. No. 8.2e-118;
Matches 273; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTCYLQLLLFNPVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
Db 1 MKKTQTWLTCTCYLQLLLFNPVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60

Qy 61 MDVLPCHWISWVQVLSLTDLLDKFSNISGLSNYSIIDKLVINIYDDLVKCKENSS 120
Db 61 MDVLPCHWISWVQVLSLTDLLDKFSNISGLSNYSIIDKLVINIYDDLVKCKENSS 120

Qy 121 KDLKKSFKSPRLPTPEEPRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVST 180
Db 121 KDLKKSFKSPRLPTPEEPRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVST 180

Qy 161 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240
Db 161 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWK 240

Qy 241 QPSLTRAVENTIQTNEEDNEISMLQEKEREFOEV 273
Db 241 QPSLTRAVENTIQTNEEDNEISMLQEKEREFOEV 273

RESULT 3
US-10-353-783-48
; Sequence 48, Application US/10353783
; Publication No. US20050261175A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
```

OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/353,783
FILING DATE: 28-Jan-2003
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/448,729
FILING DATE: 24-MAY-1995
APPLICATION NUMBER: 08/172,329
FILING DATE: 21-DEC-1993
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/684,535
FILING DATE: 10-APR-1991
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/32958A
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 48:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 48:
US-10-353-783-48

Query Match 99.6%; Score 1392; DB 6; Length 273;
Best Local Similarity 99.6%; Pred. No. 2.3e-117;
Matches 272; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTYQLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTYQLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
QY 121 KDLKSKSPKSPRLPTPEFFRIFNRSIDAFKDFVAVSETSDCVVSSSTLSPEKDSRVSVT 180
DB 121 KDLKSKSPKSPRLPTPEFFRIFNRSIDAFKDFVAVSETSDCVVSSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASLRNDSSSNRKNPFGDSSLHWAAMALPALFSLIIGFAPGALYWKCR 240
DB 181 KPFMLPPVAASLRNDSSSNRKNPFGDSSLHWPAMALPALFSLIIGFAPGALYWKCR 240
QY 241 QPSLTRAVENTQINEEDNEISMLOEKEREFQEV 273
DB 241 QPSLTRAVENTQINEEDNEISMLOEKEREFQEV 273

RESULT 4

US-10-353-783-50
Sequence 50, Application US/10353783
Publication No. US20050261175A1
GENERAL INFORMATION:
APPLICANT: Zeebo, Kristina M.
Bosselman, Robert A.
Suggs, Sidney V.

Martin, Francis H.
TITLE OF INVENTION: Stem Cell Factor
NUMBER OF SEQUENCES: 104
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/353,783
FILING DATE: 28-Jan-2003
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/448,729
FILING DATE: 24-MAY-1995
APPLICATION NUMBER: 08/172,329
FILING DATE: 21-DEC-1993
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/684,535
FILING DATE: 10-APR-1991
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/32958A
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 50:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 50:
US-10-353-783-50
Query Match 98.9%; Score 1381; DB 6; Length 273;
Best Local Similarity 98.9%; Pred. No. 2.2e-116;
Matches 270; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTYQLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTYQLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
QY 121 KDLKSKSPKSPRLPTPEFFRIFNRSIDAFKDFVAVSETSDCVVSSSTLSPEKDSRVSVT 180
DB 121 KDLKSKSPKSPRLPTPEFFRIFNRSIDAFKDFVAVSETSDCVVSSSTLSPEKDSRVSVT 180
QY 181 KPFMLPPVAASLRNDSSSNRKNPFGDSSLHWAAMALPALFSLIIGFAPGALYWKCR 240
DB 181 KPFMLPPVAASLRNDSSSNRKNPFGDSSLHWAAMALPAFFSLIIGFAPGALYWKCR 240

QY 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273
DB 241 QPSLTRAVENTIQINEEDNEISMLOKEREFOEV 273

RESULT 5
US-10-519-390-24
; Sequence 24, Application US/10519390
; Publication No. US2006000872A1
; GENERAL INFORMATION:
; APPLICANT: MEDEXGEN Inc.
; APPLICANT: CHUNG, Yong-Hoon
; APPLICANT: LEE, Hak-sup
; APPLICANT: YI, Ki-Wan
; APPLICANT: KIM, Jae-Youn
; APPLICANT: HEO, Youn-Hwa
; TITLE OF INVENTION: A method of improving efficacy of biological response-modifying
; FILE REFERENCE: proteins and the example mutants
; CURRENT APPLICATION NUMBER: US/10/519,390
; CURRENT FILING DATE: 2004-12-23
; PRIOR APPLICATION NUMBER: KR10-2003-0051846
; PRIOR FILING DATE: 2003-07-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: Kopatentin 1.71
; SEQ ID NO 24
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: SCF: 63rd, 102nd, 110th, 115th, 116th, 119th, 126th, 129th,
; OTHER INFORMATION: 158th, 199th, 205th, 207th or 245th Phe is replaced by Val.
US-10-519-390-24

Query Match 90.6%; Score 1265; DB 6; Length 248;
Best Local Similarity 100.0%; Pred. No. 4.7e-106;
Matches 248; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 26 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISWMVQLSDSLTDLL 85
DB 1 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISWMVQLSDSLTDLL 60

QY 86 DKFSNISEGLSNYSIIDKLVINIVDDLVKCVKENSCKDKKSKSPPEPLFTPEEFFRIFN 145
DB 61 DKFSNISEGLSNYSIIDKLVINIVDDLVKCVKENSCKDKKSKSPPEPLFTPEEFFRIFN 120

QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPPMLPPVAASSLRNDSSSNRKA 205
DB 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPPMLPPVAASSLRNDSSSNRKA 180

QY 206 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKKQPSLTRAVENTIQINEEDNEISMLOE 265
DB 181 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKKQPSLTRAVENTIQINEEDNEISMLOE 240

QY 266 KEREFOEV 273
DB 241 KEREFOEV 248

RESULT 6
US-11-176-830-206
; Sequence 206, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding Nu
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830

; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 206
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: Genbank AAA85450
; DATABASE ENTRY DATE: 1996-01-19
US-11-176-830-206

Query Match 90.6%; Score 1265; DB 7; Length 248;
Best Local Similarity 100.0%; Pred. No. 4.7e-106;
Matches 248; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 26 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISWMVQLSDSLTDLL 85
DB 1 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISWMVQLSDSLTDLL 60

QY 86 DKFSNISEGLSNYSIIDKLVINIVDDLVKCVKENSCKDKKSKSPPEPLFTPEEFFRIFN 145
DB 61 DKFSNISEGLSNYSIIDKLVINIVDDLVKCVKENSCKDKKSKSPPEPLFTPEEFFRIFN 120

QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPPMLPPVAASSLRNDSSSNRKA 205
DB 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPPMLPPVAASSLRNDSSSNRKA 180

QY 206 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKKQPSLTRAVENTIQINEEDNEISMLOE 265
DB 181 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKKQPSLTRAVENTIQINEEDNEISMLOE 240

QY 266 KEREFOEV 273
DB 241 KEREFOEV 248

RESULT 7
US-11-176-830-520
; Sequence 520, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding Nu
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 520
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-520

Query Match 90.4%; Score 1263; DB 7; Length 248;
Best Local Similarity 99.6%; Pred. No. 7e-106;

```
Matches 247; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 26 EGICRNRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDL 85
Db 1 EGICRNRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDL 60
QY 86 DKFSNISSEGLSNYSIIDKLVNIVDLVECVKENSCKDLKSKFSKPEPRIFTPEEPFRIFN 145
Db 61 DKFSNISSEGLSNYSIIDKLVNIVDLVECVKENSCKDLKSKFSKPEPRIFTPEEPFRIFN 120
QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKA 205
Db 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKA 180
QY 206 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAIVENIQINEEDNEISMLQ 265
Db 181 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAIVENIQINEEDNEISMLQ 240
QY 266 KEREFQEV 273
Db 241 KEREFQEV 248
RESULT 8
US-11-176-830-537
; Sequence 537, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 537
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-537
Query Match 90.4%; Score 1263; DB 7; Length 248;
Best Local Similarity 99.6%; Pred. No. 7e-106;
Matches 247; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 26 EGICRNRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDL 85
Db 1 EGICRNRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDL 60
QY 86 DKFSNISSEGLSNYSIIDKLVNIVDLVECVKENSCKDLKSKFSKPEPRIFTPEEPFRIFN 145
Db 61 DKFSNISSEGLSNYSIIDKLVNIVDLVECVKENSCKDLKSKFSKPEPRIFTPEEPFRIFN 120
QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKA 205
Db 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKA 180
QY 206 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAIVENIQINEEDNEISMLQ 265
Db 181 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAIVENIQINEEDNEISMLQ 240
QY 266 KEREFQEV 273
Db 241 KEREFQEV 248
RESULT 9
US-11-176-830-519
; Sequence 519, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 519
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-519
Query Match 90.3%; Score 1262; DB 7; Length 248;
Best Local Similarity 99.6%; Pred. No. 8.6e-106;
Matches 247; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 26 EGICRNRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDL 85
Db 1 EGICRNRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDL 60
QY 86 DKFSNISSEGLSNYSIIDKLVNIVDLVECVKENSCKDLKSKFSKPEPRIFTPEEPFRIFN 145
Db 61 DKFSNISSEGLSNYSIIDKLVNIVDLVECVKENSCKDLKSKFSKPEPRIFTPEEPFRIFN 120
QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKA 205
Db 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKA 180
QY 206 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAIVENIQINEEDNEISMLQ 265
Db 181 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAIVENIQINEEDNEISMLQ 240
QY 266 KEREFQEV 273
Db 241 KEREFQEV 248
RESULT 10
US-11-176-830-529
; Sequence 529, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 60/457,135
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```
Db 241 KEREFQEV 248
RESULT 9
US-11-176-830-519
; Sequence 519, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 519
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-519
Query Match 90.3%; Score 1262; DB 7; Length 248;
Best Local Similarity 99.6%; Pred. No. 8.6e-106;
Matches 247; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 26 EGICRNRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDL 85
Db 1 EGICRNRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWISSEMVVQLSDSLTDL 60
QY 86 DKFSNISSEGLSNYSIIDKLVNIVDLVECVKENSCKDLKSKFSKPEPRIFTPEEPFRIFN 145
Db 61 DKFSNISSEGLSNYSIIDKLVNIVDLVECVKENSCKDLKSKFSKPEPRIFTPEEPFRIFN 120
QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKA 205
Db 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKA 180
QY 206 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAIVENIQINEEDNEISMLQ 265
Db 181 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAIVENIQINEEDNEISMLQ 240
QY 266 KEREFQEV 273
Db 241 KEREFQEV 248
RESULT 10
US-11-176-830-529
; Sequence 529, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 60/457,135
```

; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 529
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-529

Query Match 90.3%; Score 1262; DB 7; Length 248;
Best Local Similarity 99.6%; Pred. No. 8.6e-106;
Matches 247; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 26 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISMMVQLSDSLTDL 85
Db 1 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISMMVQLSDSLTDL 60
Qy 86 DKFSNISSEGLSNYSIIDKLVNI VDDLVECVKENS SKDKKSKFSPPEPRIFN 145
Db 61 DKFSNISSEGLSNYSIIDKLVNI VDDLVECVKENS SKDKKSKFSPPEPRIFN 120
Qy 146 RSIDAFKDFVVASSETDCVWSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKAK 205
Db 121 RSIDAFKDFVVASSETDCVWSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKAK 180
Qy 206 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOE 265
Db 181 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOE 240
Qy 266 KEREFQEV 273
Db 241 KEREFQEV 248

RESULT 11

US-11-176-830-536
; Sequence 536, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding Nu
; FILE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 536
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-536

Query Match 90.3%; Score 1262; DB 7; Length 248;
Best Local Similarity 99.6%; Pred. No. 8.6e-106;
Matches 247; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 26 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISMMVQLSDSLTDL 85
Db 1 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISMMVQLSDSLTDL 60
Qy 86 DKFSNISSEGLSNYSIIDKLVNI VDDLVECVKENS SKDKKSKFSPPEPRIFN 145

Db 61 DKFSNISSEGLSNYSIIDKLVNI VDDLVECVKENS SKDKKSKFSPPEPRIFN 120
Qy 146 RSIDAFKDFVVASSETDCVWSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKAK 205
Db 121 RSIDAFKDFVVASSETDCVWSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKAK 180
Qy 206 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOE 265
Db 181 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOE 240
Qy 266 KEREFQEV 273
Db 241 KEREFQEV 248

RESULT 12

US-11-176-830-538
; Sequence 538, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding Nu
; FILE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 538
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-538

Query Match Similarity 90.3%; Score 1262; DB 7; Length 248;
Best Local Similarity 99.6%; Pred. No. 8.6e-106;
Matches 247; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 26 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISMMVQLSDSLTDL 85
Db 1 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISMMVQLSDSLTDL 60
Qy 86 DKFSNISSEGLSNYSIIDKLVNI VDDLVECVKENS SKDKKSKFSPPEPRIFN 145
Db 61 DKFSNISSEGLSNYSIIDKLVNI VDDLVECVKENS SKDKKSKFSPPEPRIFN 120
Qy 146 RSIDAFKDFVVASSETDCVWSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKAK 205
Db 121 RSIDAFKDFVVASSETDCVWSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKAK 180
Qy 206 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOE 265
Db 181 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOE 240
Qy 266 KEREFQEV 273
Db 241 KEREFQEV 248

RESULT 13

US-11-176-830-499
; Sequence 499, Application US/11176830
; Publication No. US20060020116A1


```
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Dittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; TITLE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; PRIOR FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 499
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-499

Query Match          90.3%; Score 1261; DB 7; Length 248;
Best Local Similarity 99.6%; Pred. No. 1.1e-105;
Matches 247; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 26 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKVPQGMVDVLPSCWCWISSEMVVQLSDSLTDLL 85
DB 1 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKVPQGMVDVLPSCWCWISSEMVVQLSDSLTDLL 60

QY 86 DKFSNISEGLSNYSIIDKLNVNVDLVECVKENSCKDLKSKSPKSPPEPRLFTPEEPFRIFN 145
DB 61 DKFSNISEGLSNYSIIDKLNVNVDLVECVKENSCKDLKSKSPKSPPEPRLFTPEEPFRIFN 120

QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNRKAK 205
DB 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNRKAK 180

QY 206 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIQINEEDNEISMLQ 265
DB 181 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIQINEEDNEISMLQ 240

QY 266 KEREFQEV 273
DB 241 KEREFQEV 248

RESULT 14
US-11-176-830-500
; Sequence 500, Application US/11/176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Dittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; TITLE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; PRIOR FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 500
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-500

Query Match          90.3%; Score 1261; DB 7; Length 248;
Best Local Similarity 99.6%; Pred. No. 1.1e-105;
Matches 247; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 26 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKVPQGMVDVLPSCWCWISSEMVVQLSDSLTDLL 85
DB 1 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKVPQGMVDVLPSCWCWISSEMVVQLSDSLTDLL 60

QY 86 DKFSNISEGLSNYSIIDKLNVNVDLVECVKENSCKDLKSKSPKSPPEPRLFTPEEPFRIFN 145
DB 61 DKFSNISEGLSNYSIIDKLNVNVDLVECVKENSCKDLKSKSPKSPPEPRLFTPEEPFRIFN 120

QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNRKAK 205
DB 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNRKAK 180

QY 206 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIQINEEDNEISMLQ 265
DB 181 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIQINEEDNEISMLQ 240

QY 266 KEREFQEV 273
DB 241 KEREFQEV 248
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-500

Query Match          90.3%; Score 1261; DB 7; Length 248;
Best Local Similarity 99.6%; Pred. No. 1.1e-105;
Matches 247; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 26 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKVPQGMVDVLPSCWCWISSEMVVQLSDSLTDLL 85
DB 1 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKVPQGMVDVLPSCWCWISSEMVVQLSDSLTDLL 60

QY 86 DKFSNISEGLSNYSIIDKLNVNVDLVECVKENSCKDLKSKSPKSPPEPRLFTPEEPFRIFN 145
DB 61 DKFSNISEGLSNYSIIDKLNVNVDLVECVKENSCKDLKSKSPKSPPEPRLFTPEEPFRIFN 120

QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNRKAK 205
DB 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNRKAK 180

QY 206 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIQINEEDNEISMLQ 265
DB 181 NPPGDSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIQINEEDNEISMLQ 240

QY 266 KEREFQEV 273
DB 241 KEREFQEV 248

RESULT 15
US-11-176-830-501
; Sequence 501, Application US/11/176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Dittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; TITLE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; PRIOR FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 501
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-501

Query Match          90.3%; Score 1261; DB 7; Length 248;
Best Local Similarity 99.6%; Pred. No. 1.1e-105;
Matches 247; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 26 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKVPQGMVDVLPSCWCWISSEMVVQLSDSLTDLL 85
DB 1 EGICRNRVTNNVKDVTKLVLNLPKDYMITLKVPQGMVDVLPSCWCWISSEMVVQLSDSLTDLL 60

QY 86 DKFSNISEGLSNYSIIDKLNVNVDLVECVKENSCKDLKSKSPKSPPEPRLFTPEEPFRIFN 145
DB 61 DKFSNISEGLSNYSIIDKLNVNVDLVECVKENSCKDLKSKSPKSPPEPRLFTPEEPFRIFN 120

QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNRKAK 205
DB 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNRKAK 180
```

Qy	206	NPPGDSLIHWAAMALPALFSLIGFAGALYWKXKQPSLTRAVENTIINEDNEISMLQE	265
Db	181	NPPGDSLIHWAAMALPALFSLIGFAGALYWKXKQPSLTRAVENTIINEDNEISMLQE	240
Qy	266	KEREFQEV	273
Db	241	KEREFQEV	248

Search completed: February 22, 2006, 18:27:28
Job time : 10.5289 secs

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 22, 2006, 18:05:41 ; Search time 144.098 Seconds
(without alignments)
747.047 Million cell updates/sec

Title: US-10-620-642-63

Perfect score: 1262

Sequence: 1 MKKTWTWLTCTIYLQLLFFN.....NEEDNEISMLQKEREFEQV 245

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A_Geneseq_21.*

- 1: Geneseqp1980s.*
- 2: Geneseqp1990s.*
- 3: Geneseqp2000s.*
- 4: Geneseqp2001s.*
- 5: Geneseqp2002s.*
- 6: Geneseqp2003as.*
- 7: Geneseqp2003bs.*
- 8: Geneseqp2004s.*
- 9: Geneseqp2005s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1262	100.0	245	2	Aar11712 Human Ste
2	1262	100.0	245	2	Aar83979 Human Ste
3	1262	100.0	245	4	Aab98368 Human SCF
4	1262	100.0	245	4	Aau02461 Human SCF
5	1262	100.0	245	4	Aab96953 Human Ste
6	1262	100.0	245	4	Aab73568 Human SCF
7	1262	100.0	245	4	Aau02767 Human SCF
8	1262	100.0	245	4	Aau05267 Human SCF
9	1262	100.0	245	5	Aae22327 Human SCF
10	1262	100.0	245	5	Abg95643 Human SCF
11	1262	100.0	245	7	Ades2491 Human Ste
12	1262	100.0	245	8	Adp99333 Human Ste
13	1262	100.0	245	8	AdS88051 Tumour tr
14	1262	100.0	245	8	AdU50663 Human SCF
15	1262	100.0	245	9	AdW93108 Human Ste
16	1262	100.0	245	9	Adz47560 Human Ste
17	1251.5	99.2	246	3	Aay53285 Human SCF
18	1231	97.5	273	2	Aar11711 Human Ste
19	1231	97.5	273	2	Aar20647 Human Ste
20	1231	97.5	273	2	Aar83978 Human Ste
21	1231	97.5	273	2	Aaw27607 Human Ste
22	1231	97.5	273	3	Aay53284 Human SCF
23	1231	97.5	273	4	Aab98367 Human SCF
24	1231	97.5	273	4	Aab98357 Human SCF

25	1231	97.5	273	4	Aau02460 Human SCF
26	1231	97.5	273	4	Aab96942 Human Ste
27	1231	97.5	273	4	Aab96941 Human Ste
28	1231	97.5	273	4	Aab96952 Human Ste
29	1231	97.5	273	4	Aab73567 Human SCF
30	1231	97.5	273	4	Aau02766 Human SCF
31	1231	97.5	273	4	Aau05266 Human SCF
32	1231	97.5	273	5	Aae22326 Human SCF
33	1231	97.5	273	5	Abg95642 Human SCF
34	1231	97.5	273	7	Ades2477 Human Ste
35	1231	97.5	273	7	AdS52489 Human Ste
36	1231	97.5	273	7	AdN95540 Human BEC
37	1231	97.5	273	8	Adp99331 Human Ste
38	1231	97.5	273	8	Adp99319 Human Ste
39	1231	97.5	273	8	AdU50661 Human Ste
40	1231	97.5	273	8	AdW93094 Human Ste
41	1231	97.5	273	9	AdW93106 Human Ste
42	1231	97.5	273	9	Adz47558 Human Ste
43	1231	97.5	273	9	Adz47546 Human Ste
44	1231	97.5	273	9	Adz47546 Human Ste
45	1230	97.5	245	2	Aar20646 Human "De

ALIGNMENTS

RESULT 1
AAR11712
ID AAR11712 standard; protein; 245 AA.
XX
AC AAR11712;
XX
DT 20-JUN-1991 (first entry)
XX
DB Human Stem Cell Factor from 5637 bladder carcinoma line.
XX
KW Stem cell factor; SCF; leukopenia; AIDS; haematopoiesis.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1..25
FT Protein /label= sig-peptide
FT Protein 26..245
FT Protein /label= mat_protein
XX
PN EP423980-A.
XX
PD 24-APR-1991.
XX
XX 04-OCT-1990; 90EP-00310899.
XX
PR 16-OCT-1989; 89US-00422383.
PR 11-JUN-1990; 90US-00537198.
PR 24-AUG-1990; 90US-00573616.
PR 28-SEP-1990; 90WO-US005548.
PR 01-OCT-1990; 90US-00589701.
XX
XX (AMGE-) AMGEN.
XX
XX Zsebo KM, Suggs SV, Bosselman RA, Martin FH;
PI WPI; 1991-119233/17.
XX
XX N-PSDB; AAQ11543.
XX
XX New naturally-occurring polypeptide stem cell factor analogues - have
XX haematopoietic biological activity of stem cell factor and are used to
XX treat e.g. leukopenia, AIDS, nerve damage and infertility.
XX
XX Disclosure; Fig 44; 127pp; English.
XX
XX The SCF has the ability to stimulate growth of primitive progenitors
XX including early hematopoietic progenitor cells and non- hematopoietic
CC

CC stem cells such as neural stem cells and primordial germ stem cells. The
 CC product may be used in a pharmaceutical compen. for treating, in a
 CC mamal, leukopenia, thrombocytopenia, anaemia, AIDS, neoplasia, nerve
 CC damage, infertility and intestinal damage. See also AAR11708, AAR11509-
 CC Q11543
 XX
 SQ Sequence 245 AA;

Query Match 100.0%; Score 1262; DB 2; Length 245;
 Best Local Similarity 100.0%; Pred. No. 3e-121;
 Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTYLLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
 Db 1 MKKTQTWLTCTYLLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60

Qy 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLWNIYDDLVECKENSS 120
 Db 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLWNIYDDLVECKENSS 120

Qy 121 KDLKSKFSKSPPEPRLFTPEEPFRIFNRSIDAPKDFVASETSDCVVSTLSPEKGAKNPP 180
 Db 121 KDLKSKFSKSPPEPRLFTPEEPFRIFNRSIDAPKDFVASETSDCVVSTLSPEKGAKNPP 180

Qy 181 GDSSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOEKER 240
 Db 181 GDSSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOEKER 240

Qy 241 EFQEV 245
 Db 241 EFQEV 245

RESULT 2
 AAR83979
 ID AAR83979 standard; protein; 245 AA.
 XX
 AC AAR83979;
 XX
 DT 25-MAR-2003 (revised)
 DT 15-MAY-1996 (first entry)
 XX
 DE Human stem cell factor derived from 5637 bladder carcinoma cell line.
 XX
 KW Stem cell factor; progenitor; haematopoiesis; SCF; anaemia;
 KW thrombocytopenia; leucopenia; AIDS; immunodeficiency; bone graft;
 KW transplant; neoplasia; myelosuppression; bone marrow; ss.
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Peptide 1..25
 FT Protein /label= sig_peptide
 FT /label= mat_SCF
 XX
 FN EP676470-A1.
 XX
 PD 11-OCT-1995.
 XX
 PF 04-OCT-1990; 9SEP-00105391.
 XX
 PR 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.
 PR 24-AUG-1990; 90US-00573616.
 PR 28-SEP-1990; 90WO-US005548.
 PR 01-OCT-1990; 90US-00589701.
 XX
 PA (AMGE-) AMGEN INC.
 XX
 PI Zsebo KM, Suggs SV, Bosselman RA, Martin FH;
 XX WPI; 1995-346090/45.
 DR

DR N-PSDB; AAT04891.
 XX
 PT New stem cell factor polypeptide(s) - for stimulating the growth of
 PT primitive progenitor cells, esp. for treating disorders involving blood
 XX cells.
 XX
 PS Claim 9; Fig 44; 127pp; English.
 XX
 CC AAR83979 is a human stem cell factor (SCF) derived from the 5637 bladder
 CC carcinoma cell line. Non-naturally occurring SCF and C-terminally
 CC truncated polypeptides, having amino acid sequences sufficiently
 CC duplicative of naturally occurring SCF, stimulate growth of primitive
 CC progenitors such as haematopoietic progenitor cells, neural stem cells
 CC and primordial germ stem cells. The peptides can be used in a composition
 CC for treating leucopenia, anaemia or thrombocytopenia, for enhancing
 CC engraftment of bone marrow during transplantation or for bone marrow
 CC recovery after chemotherapy or radiation-induced bone marrow aplasia or
 CC myelosuppression. They can also be used for treating neoplasia, nerve
 CC damage, infertility, intestinal damage or myeloproliferative disorders.
 CC Antibodies may be raised against the peptides for use in detection or
 CC neutralisation of SCF in serum. SCF may be useful for the treatment of
 CC AIDS and severe combined immunodeficiency (SCID) states alone or in
 CC combination with other factors such as IL-7. (Updated on 25-MAR-2003 to
 CC correct PF field.)
 XX
 SQ Sequence 245 AA;

Query Match 100.0%; Score 1262; DB 2; Length 245;
 Best Local Similarity 100.0%; Pred. No. 3e-121;
 Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTYLLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
 Db 1 MKKTQTWLTCTYLLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60

Qy 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLWNIYDDLVECKENSS 120
 Db 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLWNIYDDLVECKENSS 120

Qy 121 KDLKSKFSKSPPEPRLFTPEEPFRIFNRSIDAPKDFVASETSDCVVSTLSPEKGAKNPP 180
 Db 121 KDLKSKFSKSPPEPRLFTPEEPFRIFNRSIDAPKDFVASETSDCVVSTLSPEKGAKNPP 180

Qy 181 GDSSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOEKER 240
 Db 181 GDSSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOEKER 240

Qy 241 EFQEV 245
 Db 241 EFQEV 245

RESULT 3
 AAB98368
 ID AAB98368 standard; protein; 245 AA.
 XX
 AC AAB98368;
 XX
 DT 21-AUG-2001 (first entry)
 XX
 DE Human SCF protein sequence SEQ ID NO:63.
 XX
 KW Stem cell factor; SCF; stem cell factor receptor; blood cell disorder;
 KW gene therapy.
 XX
 OS Homo sapiens.
 XX
 FN US6207454-B1.
 XX
 PD 27-MAR-2001.
 XX
 PF 31-DEC-1998; 98US-00224681.
 XX

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PR 16-OCT-1989; 89US-00422383.
PR 11-JUN-1990; 90US-00537198.
PR 24-AUG-1990; 90US-00573616.
PR 01-OCT-1990; 90US-00589701.
PR 25-NOV-1992; 92US-00982255.
PR 21-DEC-1993; 93US-00172329.
PR 24-MAY-1995; 95US-00449653.
PR 12-JAN-1998; 98US-00005893.
XX (AMGE-) AMGEN INC.
XX
XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
XX WPI; 2001-366062/38.
XX DR N-PSDB; AAH41345.
XX
XX Enhancing efficiency of transfer of polynucleotide into a target
XX mammalian cell in vitro, involves exposing cell that expresses a stem
XX cell factor receptor to stem cell factor, and introducing polynucleotide
XX into cell in vitro.
XX
XX Claim 18; Fig 44; 210pp; English.
XX
XX The present invention describes a method for enhancing (E) the efficiency
XX of transfer of a polynucleotide (I) into a target mammalian cell (II) in
XX vitro, comprising exposing (II) that expresses a stem cell factor (SCF)
XX receptor to a biologically active SCF, its analogue or fragment, which
XX induces cell proliferation, and introducing (I) to (II) in vitro.
XX Exposure of SCF to (II) results in increased uptake of (I) into the cell.
XX The method is useful for enhancing the efficiency of the transfer of a
XX polynucleotide into a target mammalian cell in vitro. The method is
XX useful in gene therapy techniques. AAH41301 to AAH41364 and AAB98351 to
XX AAB98390 represent sequences used in the exemplification of the present
XX invention
XX
XX Sequence 245 AA;
XX
XX Query Match 100.0%; Score 1262; DB 4; Length 245;
XX Best Local Similarity 100.0%; Pred. No. 3e-121;
XX Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYPG 60
Db 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYPG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
Db 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSKSPKSPRLPTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKGAKNPP 180
Db 121 KDLKSKSPKSPRLPTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKGAKNPP 180
QY 181 GDSSLHWAAMALPALFSLIIGAFGALYWKQRQPSLTRAVENTIQRNEEDNEISMLQEKER 240
Db 181 GDSSLHWAAMALPALFSLIIGAFGALYWKQRQPSLTRAVENTIQRNEEDNEISMLQEKER 240
QY 241 EFQEV 245
Db 241 EFQEV 245
XX
XX RESULT 4
XX AAU02461
XX ID AAU02461 standard; protein; 245 AA.
XX AC AAU02461;
XX XX
XX 29-AUG-2001 (first entry)
XX
XX Human SCF protein isolated from the 5637 bladder carcinoma cell line.
XX Human; stem cell factor; SCF; early haematopoietic progenitor cell;

```

```

KW blood disorder; leukaemia; Hodgkin's disease; lymphoma; splenomegaly;
KW anaemia; Kala azar; septicemia; malaria; hypopigmentation disorder;
XX 5637 bladder carcinoma.
XX Homo sapiens.
XX Key Location/Qualifiers
XX FT Protein 1..25
XX FT Protein /label= Signal_peptide
XX FT Protein 26..245
XX FT Protein /label= Mature_SCF
XX
XX US6207417-B1.
XX
XX 27-MAR-2001.
XX
XX 07-JUN-1995; 95US-00482918.
XX
XX 16-OCT-1989; 89US-00422383.
XX 11-JUN-1990; 90US-00537198.
XX 24-AUG-1990; 90US-00573616.
XX 01-OCT-1990; 90US-00589701.
XX 21-DEC-1993; 93US-00172329.
XX
XX (ZSEB/) ZSEBO K M.
XX (BOSS/) BOSSELMAN R A.
XX (SUGG/) SUGGS S V.
XX (MART/) MARTIN F H.
XX
XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
XX WPI; 2001-298941/31.
XX DR N-PSDB; AAS04125.
XX
XX Novel nucleic acids encoding stem cell factor useful for treating
XX disorders involving blood cells, e.g. leukemia, splenomegaly, Hodgkin's
XX disease, Kala azar, anemia and septicemia.
XX
XX Example 5; Fig 44A-44C; 209pp; English.
XX
XX The present sequence representing human SCF (stem cell factor) protein is
XX isolated from the 5637 bladder carcinoma cell line. The present invention
XX relates to novel stem cell factors (AAU02453-AAU02458, AAU02460) and the
XX polynucleotides encoding them. SCF stimulate primitive progenitor cells
XX including early haematopoietic progenitor cells. The invention also
XX describes SCF peptides (AAU02462-AAU02481) and the oligonucleotides
XX (AAS04081-AAS04117) used in the isolation of human and rat SCF sequences.
XX The polynucleotide encoding SCF is useful for producing SCF and useful in
XX gene therapy. It is useful for treating disorders involving blood cells
XX such as myelofibrosis, metastatic carcinoma, acute leukaemia, multiple
XX myeloma, Hodgkin's disease, lymphoma, Gaucher's disease, anaemia,
XX congestive splenomegaly, Kala azar, sarcoidosis, military tuberculosis,
XX disseminated fungus disease, Fulminating septicemia, malaria, vitamin B12
XX and folic acid deficiency, pyridoxine deficiency, and hypopigmentation
XX disorders such as piebaldism and vitiligo
XX
XX Sequence 245 AA;
XX
XX Query Match 100.0%; Score 1262; DB 4; Length 245;
XX Best Local Similarity 100.0%; Pred. No. 3e-121;
XX Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYPG 60
Db 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYPG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
Db 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSKSPKSPRLPTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKGAKNPP 180
Db 121 KDLKSKSPKSPRLPTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKGAKNPP 180

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Qy 181 GDSSLHWAAMALPALFSLIIGFAGCALYWKQKQPSLTRAVENTIQINEEDNEISMLOEKER 240
Db 181 GDSSLHWAAMALPALFSLIIGFAGCALYWKQKQPSLTRAVENTIQINEEDNEISMLOEKER 240
Qy 241 EFQEV 245
Db 241 EFQEV 245
RESULT 5
ID AAB96953 standard; protein; 245 AA.
XX AAB96953;
AC AAB96953;
DT 13-JUL-2001 (first entry)
DE Human stem cell factor SEQ ID NO: 63.
KW Human; rat; mammal; stem cell factor; SCF; cell growth stimulation;
KW gene therapy; haematopoietic disorder; aplastic anaemia; leukaemia;
KW neurological damage; intestinal damage; infertility; AIDS; SCID;
KW severe combined immunodeficiency.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1..25
FT Protein /label= signal_peptide
FT Protein 26..245
FT Protein /label= mature_stem_cell_factor
XX
PN US6207802-B1.
XX 27-MAR-2001.
XX 09-NOV-1994; 94US-00336728.
XX 16-OCT-1989; 89US-00422383.
XX 11-JUN-1990; 90US-00537198.
XX 24-AUG-1990; 90US-00573616.
XX 01-OCT-1990; 90US-00589701.
XX 25-NOV-1992; 92US-00982255.
XX (AMGE-) AMGEN INC.
XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
XX WPI; 2001-353108/37.
XX N-PSDB; AAF89105.
XX Novel isolated non-human mammalian stem cell factor polypeptide
XX stimulating growth of early hematopoietic progenitor cells, useful for
XX treating aplastic anemia, lymphoma, Letterer-Siwe disease, Kala azar,
XX sarcoidosis.
XX Example 5; Fig 44; 209pp; English.
XX The present invention provides the protein and coding sequences of
XX mammalian stem cell factors (SCFs). These are capable of stimulating the
XX growth of early hematopoietic progenitor cells, neural stem cells and
XX primordial germ stem cells. The sequences are useful in the treatment of
XX leukaemias, haematopoietic disorders, aplastic anaemia, paroxysmal
XX nocturnal haemoglobinuria, malaria, pigmentation disorders, neurological
XX and intestinal damage, infertility, AIDS and severe combined
XX immunodeficiency (SCID). The present sequence is an SCF described in the
XX invention
XX Sequence 245 AA;
SQ
Query Match 100.0%; Score 1262; DB 4; Length 245;
Best Local Similarity 100.0%; Pred. No. 3e-121;

Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MKKTQTWILTCIYLQALLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYYVPG 60
Db 1 MKKTQTWILTCIYLQALLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYYVPG 60
Qy 61 MDVLPSCWISSEMVVQLSDSLTDLDFSNISSEGLSNYSIIDKLNVIVDDLVECVKENS 120
Db 61 MDVLPSCWISSEMVVQLSDSLTDLDFSNISSEGLSNYSIIDKLNVIVDDLVECVKENS 120
Qy 121 KOLKSKFSKPEPRLFTPEEPFRIFNRSIDAFKDFVASETSDCVVSTLSPEKGAKNPP 180
Db 121 KOLKSKFSKPEPRLFTPEEPFRIFNRSIDAFKDFVASETSDCVVSTLSPEKGAKNPP 180
Qy 181 GDSSLHWAAMALPALFSLIIGFAGCALYWKQKQPSLTRAVENTIQINEEDNEISMLOEKER 240
Db 181 GDSSLHWAAMALPALFSLIIGFAGCALYWKQKQPSLTRAVENTIQINEEDNEISMLOEKER 240
Qy 241 EFQEV 245
Db 241 EFQEV 245
RESULT 6
AAB73568
ID AAB73568 standard; protein; 245 AA.
XX AAB73568;
AC AAB73568;
DT 07-AUG-2001 (first entry)
DE Human SCP protein isolated from the 5637 bladder carcinoma cell line.
XX Human; stem cell factor; SCF; early haematopoietic progenitor cell;
XX blood disorder; leukaemia; Hodgkin's disease; lymphoma; splenomegaly;
XX anaemia; Kala azar; septicaemia; malaria; hypopigmentation disorder;
XX 5637 bladder carcinoma.
XX Homo sapiens.
XX
FH Key Location/Qualifiers
FT Protein 1..25
FT Protein /label= Signal_peptide
FT Protein 26..245
FT Protein /label= Mature_SCF
XX
PN US6204363-B1.
XX 20-MAR-2001.
XX 25-NOV-1992; 92US-00982255.
XX 16-OCT-1989; 89US-00422383.
XX 11-JUN-1990; 90US-00537198.
XX 24-AUG-1990; 90US-00573616.
XX 01-OCT-1990; 90US-00589701.
XX 10-APR-1991; 91US-00684535.
XX (AMGE-) AMGEN INC.
XX Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
XX WPI; 2001-256683/26.
XX N-PSDB; AAH23902.
XX New stem cell factor polypeptides and their analogs which stimulate
XX growth of early hematopoietic progenitors, useful for treating aplastic
XX anemia, carcinoma, multiple myeloma, vitiligo, kala azar, Hodgkin's
XX disease.
XX Claim 10; Fig 44A-44C; 166pp; English.
XX The present sequence representing human SCF (stem cell factor) protein is
CC

CC isolated from the 5637 bladder carcinoma cell line. The present invention
 CC relates to novel stem cell factors (AAB73561-AAB73568, AAB73571-AAB73576)
 CC and the polynucleotides encoding them. SCF stimulate primitive progenitor
 CC cells including early haematopoietic progenitor cells. The invention also
 CC describes SCF peptides (AAB73578-AAB73597) and the oligonucleotides
 CC (AAH23859-AAH23895) used in the isolation of human and rat SCF sequences.
 CC The polynucleotide encoding SCF is useful for producing SCF and useful in
 CC gene therapy. It is useful for treating disorders involving blood cells
 CC such as myelofibrosis, metastatic carcinoma, acute leukaemia, multiple
 CC myeloma, Hodgkin's disease, lymphoma, Gaucher's disease, anaemia,
 CC congestive splenomegaly, Kala azar, sarcoidosis, military tuberculosis,
 CC disseminated fungus disease, Fulminating septicemia, malaria, vitamin
 CC B12 and folic acid deficiency, pyridoxine deficiency, and
 CC hypopigmentation disorders such as piebaldism and vitiligo
 XX
 SQ Sequence 245 AA;

Query Match 100.0%; Score 1262; DB 4; Length 245;
 Best Local Similarity 100.0%; Pred. No. 3e-121;
 Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYPVG 60
 DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYPVG 60
 QY 61 MDVLPSCWCWISSEMVVQLSDSLTDLDFSNISEGLSNYSIIDKLVNIYDDLVKVCNKSS 120
 DB 61 MDVLPSCWCWISSEMVVQLSDSLTDLDFSNISEGLSNYSIIDKLVNIYDDLVKVCNKSS 120
 QY 121 KDLKSKFSKSPPEPLFTPEEPFRIFNRSIDAPKDFVVASETSDCVVSTLSPEKGAKNPP 180
 DB 121 KDLKSKFSKSPPEPLFTPEEPFRIFNRSIDAPKDFVVASETSDCVVSTLSPEKGAKNPP 180
 QY 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQKQPSLTRAVENTIINEEDNISMLQEKER 240
 DB 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQKQPSLTRAVENTIINEEDNISMLQEKER 240
 QY 241 EFQEV 245
 DB 241 EFQEV 245

RESULT 7
 AAU02767
 ID AAU02767 standard; protein; 245 AA.

AC AAU02767;
 DT 29-AUG-2001 (first entry)
 XX Human SCF protein isolated from the 5637 bladder carcinoma cell line.
 DE
 XX Human; stem cell factor; SCF; early haematopoietic progenitor cell;
 KW blood disorder; leukaemia; Hodgkin's disease; lymphoma; splenomegaly;
 KW anaemia; Kala azar; septicemia; malaria; hypopigmentation disorder;
 KW 5637 bladder carcinoma.
 XX
 OS Homo sapiens.

Key Location/Qualifiers
 FH 1..25
 FT Protein /label= signal_peptide
 FT 26..245
 FT Protein /label= Mature_SCF
 ET

XX USG218148-B1.
 FN 17-APR-2001.
 PD 21-DEC-1993; 93US-00172329.
 XX 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.

PR 24-AUG-1990; 90US-00573616.
 PR 01-OCT-1990; 90US-00589701.
 PR 25-NOV-1992; 92US-00982255.
 XX (AMGE-) AMGEN INC.

PI Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
 XX WPI; 2001-281051/29.
 DR N-PSDB; AAS04225.

PT Isolated DNA sequence, encoding polypeptide product useful for
 PT stimulating growth of early hematopoietic progenitor cells.

XX Example 5; Fig 44A-44C; 167pp; English.

XX The present sequence representing human SCF (stem cell factor) protein is
 CC isolated from the 5637 bladder carcinoma cell line. The present invention
 CC relates to novel stem cell factors (AAU02761-AAU02767, AAU02770-AAU02775,
 CC AAU02797) and the polynucleotides encoding them. SCF stimulate primitive
 CC progenitor cells including early haematopoietic progenitor cells. The
 CC invention also describes SCF peptides (AAU02777-AAU02794) and the
 CC oligonucleotides (AAS04182-AAS04218) used in the isolation of human and
 CC rat SCF sequences. The polynucleotide encoding SCF is useful for
 CC producing SCF and useful in gene therapy. It is useful for treating
 CC disorders involving blood cells such as myelofibrosis, metastatic
 CC carcinoma, acute leukaemia, multiple myeloma, Hodgkin's disease,
 CC lymphoma, Gaucher's disease, anaemia, congestive splenomegaly, Kala azar,
 CC sarcoidosis, military tuberculosis, disseminated fungus disease,
 CC Fulminating septicemia, malaria, vitamin B12 and folic acid deficiency,
 CC pyridoxine deficiency, and hypopigmentation disorders such as piebaldism
 CC and vitiligo
 XX

SQ Sequence 245 AA;

Query Match 100.0%; Score 1262; DB 4; Length 245;
 Best Local Similarity 100.0%; Pred. No. 3e-121;
 Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYPVG 60
 DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVKLVANLPKDYMITLKYPVG 60
 QY 61 MDVLPSCWCWISSEMVVQLSDSLTDLDFSNISEGLSNYSIIDKLVNIYDDLVKVCNKSS 120
 DB 61 MDVLPSCWCWISSEMVVQLSDSLTDLDFSNISEGLSNYSIIDKLVNIYDDLVKVCNKSS 120
 QY 121 KDLKSKFSKSPPEPLFTPEEPFRIFNRSIDAPKDFVVASETSDCVVSTLSPEKGAKNPP 180
 DB 121 KDLKSKFSKSPPEPLFTPEEPFRIFNRSIDAPKDFVVASETSDCVVSTLSPEKGAKNPP 180
 QY 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQKQPSLTRAVENTIINEEDNISMLQEKER 240
 DB 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQKQPSLTRAVENTIINEEDNISMLQEKER 240
 QY 241 EFQEV 245
 DB 241 EFQEV 245

RESULT 8
 AAU05267
 ID AAU05267 standard; protein; 245 AA.

XX AAU05267;

XX 24-OCT-2001 (first entry)

DT Human SCF protein isolated from the 5637 bladder carcinoma cell line.
 XX
 DE Human; stem cell factor; SCF; haematopoietic progenitor cell; AIDS;
 KW blood disorder; Hodgkin's disease; vitamin B12; folic acid deficiency;
 KW hypopigmentation disorder; viral disorder; 5637 bladder carcinoma.

```
XX OS Homo sapiens.
XX FH Key Location/Qualifiers
XX FT Protein 1..25
XX FT Protein /label= Signal_peptide
XX FT Protein 26..245
XX FT Protein /label= Mature_SCF
XX PN USG248319-B1.
XX PD 19-JUN-2001.
XX PF 24-MAY-1995; 95US-00449653.
XX PR 16-OCT-1989; 89US-00422383.
XX PR 11-JUN-1990; 90US-00537198.
XX PR 24-AUG-1990; 90US-00573616.
XX PR 01-OCT-1990; 90US-00569701.
XX PR 10-APR-1991; 91US-00684535.
XX PR 25-NOV-1992; 92US-00982255.
XX PR 21-DEC-1993; 93US-00172339.
XX PA (ZSEB/) ZSEBO K M.
XX PA (BOSS/) BOSSELMAN R A.
XX PA (SUGG/) SUGGS S V.
XX PA (MART/) MARTIN F H.
XX PI Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
XX WPI; 2001-407312/43.
XX DR N-PSDB; AAS10462.
XX
XX PT Increasing the number of early hematopoietic progenitor cells in the
XX PT peripheral blood useful for the treatment of blood disorders including
XX PT Hodgkin's disease comprises the administration of human stem cell factor.
XX
XX PS Example 3; Fig 44; 210pp; English.
XX
XX CC The present sequence represents human stem cell factor (SCF). The cDNA
XX CC encoding this sequence is isolated from the 5637 bladder carcinoma cell
XX CC line. The sequence is described in an invention relating to novel stem
XX CC cell factors, the polynucleotides encoding them and methods for producing
XX CC the stem cell factors. The methods involve increasing the number of early
XX CC haematopoietic progenitor cells in human peripheral blood by
XX CC administering a haematopoietically effective human stem cell factor
XX CC polypeptide. The methods are useful for the treatment of blood disorders,
XX CC including myelofibrosis, myelocytosis, osteopetrosis, metastatic
XX CC carcinoma, acute leukaemia, multiple myeloma, Hodgkin's disease,
XX CC lymphoma, Gaucher's disease, Niemann-Pick disease, refractory anaemia,
XX CC malaria, vitamin B12 and folic acid deficiency, hypopigmentation
XX CC disorders i.e. piebaldism and viral induced disorders, including AIDS
XX
XX SQ Sequence 245 AA;
XX
XX Query Match 100.0%; Score 1262; DB 4; Length 245;
XX Best Local Similarity 100.0%; Pred. No. 3e-121;
XX Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 MKKTOTWLTCTYLLQNLFPNVLKTEGICRNRTNNVKNVNDVTKLVANLPKDYMTLKYPVG 60
XX DB 1 MKKTOTWLTCTYLLQNLFPNVLKTEGICRNRTNNVKNVNDVTKLVANLPKDYMTLKYPVG 60
XX
XX QY 61 MDVLPFHCWISWVQVLSDSLTDLLDFNSISEGLSNYSIIDKLNVIVDDLVECVKENS 120
XX DB 61 MDVLPFHCWISWVQVLSDSLTDLLDFNSISEGLSNYSIIDKLNVIVDDLVECVKENS 120
XX
XX QY 121 KDLKKSFKSPERLTPPEFRIFNRSIDAFKDFVVASETDCVSVSTLSEPKGAKNPP 180
XX DB 121 KDLKKSFKSPERLTPPEFRIFNRSIDAFKDFVVASETDCVSVSTLSEPKGAKNPP 180
XX
XX QY 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQPSLTRAVENTIQINEEDNEISMLQEKER 240
XX |||
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Db 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQPSLTRAVENTIQINEEDNEISMLQEKER 240
QY 241 EFQEV 245
Db 241 EFQEV 245
RESULT 9
AAE22327
ID AAE22327 standard; protein; 245 AA.
XX AC AAE22327;
XX DT 25-JUL-2002 (first entry)
XX DE Human SCF protein #3.
XX KW Human; stem cell factor; SCF protein; leucopaemia; thrombocytopaenia;
XX KW anaemia; myelosuppression; nerve damage; myeloproliferative disorder;
XX KW infertility; neoplasia; myelofibrosis; myelocytosis; osteopetrosis;
XX KW metastatic carcinoma; acute leukaemia; multiple myeloma; sarcoidosis;
XX KW Hodgkin's disease; lymphoma; Gaucher's disease; Niemann-Pick disease;
XX KW Letterer-Siwe disease; refractory erythroblastic anaemia; Kala azar;
XX KW Di Guglielmo syndrome; congestive splenomegaly; splenic pancytopenia;
XX KW disseminated fungus disease; Fulminating septicaemia; piebaldism; AIDS;
XX KW acquired immune deficiency syndrome; malaria; military tuberculosis;
XX KW pyridoxine deficiency; vitamin B12 deficiency; folic acid deficiency;
XX KW Diamond Blackfan anaemia; hypopigmentation disorder; vitiligo.
XX OS Homo sapiens.
XX FH Key Location/Qualifiers
XX FT Peptide 1..25
XX FT Protein /label= Signal_peptide
XX FT Protein 26..245
XX FT Protein /note= "Mature human SCF protein"
XX PN US2002018763-A1.
XX PD 14-FEB-2002.
XX PF 12-JAN-1998; 98US-00005243.
XX PR 24-MAY-1995; 95US-00449653.
XX PA (ZSEB/) ZSEBO K M.
XX PA (BOSS/) BOSSELMAN R A.
XX PA (SUGG/) SUGGS S V.
XX PA (MART/) MARTIN F H.
XX PI Zsebo KM, Bosselman RA, Suggs SV, Martin FH;
XX WPI; 2002-350789/38.
XX DR N-PSDB; AAD35478.
XX
XX PT Novel non-naturally-occurring stem cell factor polypeptide, useful for
XX PT treating leucopenia, thrombocytopenia, anemia and for enhancing
XX PT engraftment of bone marrow during transplantation in a mammal.
XX
XX PS Claim 9; Fig 44; 217pp; English.
XX
XX CC The present invention relates to novel non-naturally-occurring stem cell
XX CC factor (SCF) polypeptides having an amino acid sequence sufficiently
XX CC duplicative of that of naturally-occurring SCF to allow possession of
XX CC haematopoietic biological activity of naturally occurring SCF. Sequences
XX CC of the invention are useful for treating leucopaemia, thrombocytopaenia,
XX CC anaemia and for enhancing bone marrow recovery in treatment of radiation,
XX CC engraftment of bone marrow during transplantation in mammals and chemical
XX CC or chemotherapeutic induced bone marrow aplasia or myelosuppression. They
XX CC are also useful for treating acquired immune deficiency in a human, nerve
XX CC damage, neoplasia, infertility, myeloproliferative disorder, intestinal
XX CC damage in a mammal. SCF sequences are useful for preparing biologically
XX CC active polymer polypeptide adduct, for enhancing transfection of early
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CC haematopoietic progenitor cells with a gene, and transfer of a gene into
 CC a mammal. They are useful for treating myelofibrosis, myelocytosis,
 CC osteopetrosis, metastatic carcinoma, acute leukaemia, multiple myeloma,
 CC Hodgkin's disease, lymphoma, Gaucher's disease, Niemann-Pick disease,
 CC Letterer-Siwe disease, refractory erythroblastic anaemia, Di Guglielmo
 CC syndrome, congestive splenomegaly, Kala azar, sarcoidosis, primary
 CC splenic pancytopenia, disseminated fungus disease, malaria, military
 CC tuberculosis, fulminating septicaemia, pyridoxine deficiency, vitamin B12
 CC and folic acid deficiency, Diamond Blackfan anaemia, hypopigmentation
 CC disorders such as piebaldism, AIDS (acquired immune deficiency syndrome)
 CC and vitiligo. The present sequence is human SCF protein
 XX
 XX

SQ Sequence 245 AA;

Query Match 100.0%; Score 1262; DB 5; Length 245;
 Best Local Similarity 100.0%; Pred. No. 3e-121;
 Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTTWLTCTIYQLQLLFNPLVKTGICRNRVTNNKDVTKLVANLPKDYMITLKYPVG 60
 DB 1 MKKTTWLTCTIYQLQLLFNPLVKTGICRNRVTNNKDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLNVIVDDLVCEVKENSS 120
 DB 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLNVIVDDLVCEVKENSS 120

QY 121 KDLKSFSPPEPLPTPEFFRIFNRSIDAPKDFVVASETSDCVVSSSTLSPEKAKNPP 180
 DB 121 KDLKSFSPPEPLPTPEFFRIFNRSIDAPKDFVVASETSDCVVSSSTLSPEKAKNPP 180

QY 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQKQPSLTRAVENTIINEEDNEISMLQEKER 240
 DB 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQKQPSLTRAVENTIINEEDNEISMLQEKER 240

QY 241 EFQEV 245
 DB 241 EFQEV 245

RESULT 10

ABG95643

ID ABG95643 standard; protein; 245 AA.

XX AC ABG95643;

XX DT 05-DEC-2002 (first entry)

XX DE Human SCF protein from 5637 bladder carcinoma cell line.

XX KW Stem cell factor; SCF; blood-forming system; blood cell disorder;
 KW haematopoietic system; metastatic carcinoma; acute leukaemia;
 KW multiple myeloma; Hodgkin's disease; lymphoma; malaria; vitiligo;
 KW refractory erythroblastic anaemia; military tuberculosis; cytostatic;
 KW disseminated fungus disease; haematopoietic; tuberculostatic;
 KW antifungal; antimalarial; dermatological; human;
 KW 5637 bladder carcinoma cell line.

XX OS Homo sapiens.

XX XX EP1241258-A2.

XX XX 18-SEP-2002.

XX XX 04-OCT-1990; 2002EP-00008587.

XX PR 16-OCT-1989; 89US-00422383.

XX PR 11-JUN-1990; 90US-00537198.

XX PR 24-AUG-1990; 90US-00573616.

XX PR 28-SEP-1990; 90WO-US005548.

XX PR 01-OCT-1990; 90US-00589701.

XX PR 04-OCT-1990; 90EP-00310899.

XX PR 04-OCT-1990; 95EP-00105391.

XX XX

PA (AMGE-) AMGEN INC.

PI Zsebo KM, Suggs SV, Bosselman RA, Martin FH;

XX WPI; 2002-684093/74.

DR N-PSDB; ABS73860.

XX Production of a human stem cell factor (SCF) polypeptide for treating

PT disorders involving blood cells, such as leukemia, comprises culturing

PT mammalian cells comprising non-human SCF promoter DNA linked to DNA

PT encoding the human SCF.

XX Example 18; Fig 44; 120pp; English.

XX The present invention relates to novel stem cell factors (SCFs),

CC polynucleotide sequences encoding the SCFs, and methods of producing

CC them. SCFs are involved in the blood-forming (haematopoietic) system in

CC mammals, particularly humans. The method of the invention is useful for

CC the production of human SCF. The stem cell factors are useful to treat

CC disorders involving blood cells e.g. metastatic carcinoma, acute

CC leukaemia, multiple myeloma, Hodgkin's disease, lymphoma, refractory

CC erythroblastic anaemia, military tuberculosis, disseminated fungus

CC disease, malaria, and vitiligo. The present sequence represents human SCF

CC protein isolated from the 5637 bladder carcinoma cell line

XX

SQ Sequence 245 AA;

Query Match 100.0%; Score 1262; DB 5; Length 245;

Best Local Similarity 100.0%; Pred. No. 3e-121;

Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTTWLTCTIYQLQLLFNPLVKTGICRNRVTNNKDVTKLVANLPKDYMITLKYPVG 60

DB 1 MKKTTWLTCTIYQLQLLFNPLVKTGICRNRVTNNKDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLNVIVDDLVCEVKENSS 120

DB 61 MDVLPSCWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLNVIVDDLVCEVKENSS 120

QY 121 KDLKSFSPPEPLPTPEFFRIFNRSIDAPKDFVVASETSDCVVSSSTLSPEKAKNPP 180

DB 121 KDLKSFSPPEPLPTPEFFRIFNRSIDAPKDFVVASETSDCVVSSSTLSPEKAKNPP 180

QY 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQKQPSLTRAVENTIINEEDNEISMLQEKER 240

DB 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQKQPSLTRAVENTIINEEDNEISMLQEKER 240

QY 241 EFQEV 245

DB 241 EFQEV 245

RESULT 11

ADBS2491

ID ADBS2491 standard; protein; 245 AA.

XX AC ADBS2491;

XX XX 29-JAN-2004 (first entry)

XX DE Human stem cell factor (SCF) polypeptide #6.

XX KW Human; stem cell factor; SCF; haematopoietic activity; infertility;
 KW intestinal damage; myeloproliferative disorder; leucopenia;
 KW thrombocytopenia; anaemia; bone marrow transplant; immune deficiency;
 KW neoplasia; nerve damage; osteoporosis; metastatic carcinoma; leukaemia;
 KW military tuberculosis; haematopoietic progenitor cell.

XX OS Homo sapiens.

XX XX US2002031491-A1.

XX XX 14-MAR-2002.

XX PD

CC variety of recombinant techniques or for generating new and useful viral
 CC and circular plasmid DNA vectors, new and useful transformed and
 CC transfected prokaryotic and eukaryotic host cells, and new and useful
 CC methods for cultured growth of such host cells capable of expression of
 CC SCF and its related products. The DNA sequences are also useful as
 CC labelled probes in isolating human genomic DNA encoding SCF, in methods
 CC of protein synthesis, in genetic therapy in humans and other mammals, and
 CC in developing transgenic mammalian species which may serve as eukaryotic
 CC hosts for production of SCF and SCF products in quantity. The SCF is
 CC useful for treating haematopoietic disorders, e.g., aplastic anaemia,
 CC paroxysmal nocturnal haemoglobinuria, myelofibrosis, myeloclelerosis,
 CC osteopetrosis, metastatic carcinoma, acute leukaemia, multiple myeloma,
 CC Hodgkin's disease, lymphoma, Gaucher's disease, Niemann-Pick disease,
 CC Letterer-Siwe disease, refractory erythroblastic anaemia, Di Guglielmo
 CC syndrome, congestive splenomegaly, Kala awar, sarcoidosis, primary
 CC splenic pancytopenia, military tuberculosis, disseminated fungus disease,
 CC Fulminating septicaemia, malaria, vitamin B 12 and folic acid deficiency,
 CC pyridoxine deficiency, Diamond Blackfan anaemia, and hypopigmentation
 CC disorders such as pibaldism and vitiligo. The SCF are also useful for
 CC treating neurological damage, infertility states, intestinal damage
 CC resulting from irradiation or chemotherapy, and AIDS. SCF is also useful
 CC for enhancing haematopoietic recovery after acute blood loss and as a
 CC boost to the immune system for fighting neoplasia (cancer). The present
 CC sequence is a human SCF protein sequence (partial or full length).

XX Sequence 245 AA;

Query Match 100.0%; Score 1262; DB 8; Length 245;
 Best Local Similarity 100.0%; Pred. No. 3e-121;
 Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
 Db 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60

Qy 61 MDVLPSCWISSEMVVQLSDSLTDLDFSNISEGLSNYSIIDKLVNIYVDDLVECVKENS 120
 Db 61 MDVLPSCWISSEMVVQLSDSLTDLDFSNISEGLSNYSIIDKLVNIYVDDLVECVKENS 120

Qy 121 KDLKKSFKSPPEPLTPTPEEPFRIFNRSIDAFKDFVVASETSDCVSVSTLSEKAKKNPP 180
 Db 121 KDLKKSFKSPPEPLTPTPEEPFRIFNRSIDAFKDFVVASETSDCVSVSTLSEKAKKNPP 180

Qy 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENIQINEEDNEISMLOEKER 240
 Db 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENIQINEEDNEISMLOEKER 240

Qy 241 EFQEV 245
 Db 241 EFQEV 245

RESULT 13

AD888051
 ID AD888051 standard; protein; 245 AA.

XX AC AD888051;

XX 18-NOV-2004 (first entry)

DE Tumour treatment-related human protein sequence SeqID87.

KW tumour inhibition; tumour treatment; metastasis; infectious lesion;
 KW antigen presenting cell; immunostimulatory cytokine; cytostatic;
 KW vulnery; immunomodulator; melanoma; hepatoma; adenocarcinoma;
 KW colorectal cancer; basal cell cancer; oral cancer; nasopharyngeal cancer;
 KW laryngeal cancer; bladder cancer; head cancer; neck cancer;
 KW renal cell cancer; pancreatic cancer; pulmonary cancer; cervical cancer;
 KW ovarian cancer; oesophageal cancer; gastric cancer; prostate cancer;
 KW testicular cancer; breast cancer; human.

XX Homo sapiens.

OS

XX

PN WO2004034995-A2.

XX 29-APR-2004.

XX 15-OCT-2003; 2003WO-US032827.

XX 15-OCT-2002; 2002US-0418865P.

XX (UYPI-) UNIV PITTSBURGH.

PI Lotze MT, Tahara H;

DR WPI; 2004-365083/34.

DR N-PSDB; ADS88050.

XX Inhibiting or treating a tumor, metastasis or infectious lesion comprises
 PT administering into or near site of a tumor or infectious lesion an
 PT antigen presenting cell and an immunostimulatory cytokine or a nucleic
 PT acid encoding the cytokine.

XX Disclosure; SEQ ID NO 87; 169pp; English.

XX This invention relates to a novel method of inhibiting or treating a
 CC tumour, metastasis or infectious lesion in a subject which comprises
 CC administering into or near a site of a tumour or infectious lesion in a
 CC subject an antigen presenting cell and an immunostimulatory cytokine or a
 CC nucleic acid encoding the cytokine. The invention may be useful for the
 CC production of compounds with a cytostatic or vulnerary activity acting as
 CC immunomodulators. The method is useful in inhibiting or treating a
 CC tumour, metastasis or infectious lesion in a subject, where the size of
 CC the tumour, metastasis (where number is also decreased) or infectious
 CC lesion is decreased. The tumour is selected from melanoma, hepatoma,
 CC adenocarcinoma, colorectal cancer, basal cell cancer, oral cancer,
 CC nasopharyngeal cancer, laryngeal cancer, bladder cancer, head and neck
 CC cancer, renal cell cancer, pancreatic cancer, pulmonary cancer, cervical
 CC cancer, ovarian cancer, oesophageal cancer, gastric cancer, prostate
 CC cancer, testicular cancer and breast cancer. The present sequence is that
 CC of a protein which is related to the invention.

XX Sequence 245 AA;

Query Match 100.0%; Score 1262; DB 8; Length 245;

Best Local Similarity 100.0%; Pred. No. 3e-121;

Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60

Db 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60

Qy 61 MDVLPSCWISSEMVVQLSDSLTDLDFSNISEGLSNYSIIDKLVNIYVDDLVECVKENS 120

Db 61 MDVLPSCWISSEMVVQLSDSLTDLDFSNISEGLSNYSIIDKLVNIYVDDLVECVKENS 120

Qy 121 KDLKKSFKSPPEPLTPTPEEPFRIFNRSIDAFKDFVVASETSDCVSVSTLSEKAKKNPP 180

Db 121 KDLKKSFKSPPEPLTPTPEEPFRIFNRSIDAFKDFVVASETSDCVSVSTLSEKAKKNPP 180

Qy 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENIQINEEDNEISMLOEKER 240

Db 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENIQINEEDNEISMLOEKER 240

Qy 241 EFQEV 245

Db 241 EFQEV 245

RESULT 14

ADU50663

ID ADU50663 standard; protein; 245 AA.

XX AC ADU50663;

XX 13-JAN-2005 (first entry)

DT

XX Human SCF cDNA from 5637 bladder carcinoma cell line, protein.
 XX
 KW Human, stem cell factor; SCF; haematopoietic;
 KW HT1080 fibrosarcoma cell line; 5637 bladder carcinoma cell line;
 KW leukaemia; thrombocytopoiesis; anaemia; bone marrow during transplant;
 KW bone marrow aplasia; myelodysplasia; immune deficiency; neoplasm;
 KW nerve damage; infertility; intestinal damage;
 KW myeloproliferative disorder; early haematopoietic progenitor cell;
 KW haematopoietic disorders; aplastic anaemia; myelofibrosis;
 KW myelocytosis; osteopetrosis; metastatic carcinoma; multiple myeloma;
 KW Hodgkin's disease; lymphoma; Gaucher's disease; Niemann-Pick disease;
 KW Diamond-Blackfan anaemia; DBA; Fanconi's anaemia; gene therapy;
 KW acute blood loss.
 XX
 OS Homo sapiens.
 XX
 FN US2004181044-A1.
 XX
 XX 16-SEP-2004.
 PD
 XX 19-JUN-2002; 2002US-00175608.
 XX
 PF 16-OCT-1989; 89US-00422383.
 PR 11-JUN-1990; 90US-00537198.
 PR 24-AUG-1990; 90US-00573616.
 PR 01-OCT-1990; 90US-00589701.
 PR 10-APR-1991; 91US-00684535.
 PR 25-NOV-1992; 92US-00982255.
 PR 21-DEC-1993; 93US-00172329.
 PR 07-JUN-1995; 95US-00486546.
 PR 07-AUG-2000; 2000US-00635249.
 XX
 XX (ZSEB/) ZSEBO K M.
 PA (BOSS/) BOESSELMAN R A.
 PA (SUGG/) SUGGS S V.
 PA (MART/) MARTIN F H.
 XX
 XX Zsebo KM, Boeselman RA, Suggs SV, Martin FH;
 FI WPI; 2004-707481/69.
 DR N-PSDB; ADU50662.
 DR
 XX Novel stem cell factor (SCF) such as non-naturally-occurring SCF or
 PT naturally occurring SCF, useful for treating leukopenia,
 PT thrombocytopenia, anemia, and enhancing engraftment of bone marrow during
 PT transplantation.
 XX
 PS Claim 9; SEQ ID NO 63; 216pp; English.
 XX
 CC The invention relates to a stem cell factor (SCF) such as non-naturally-
 CC occurring SCF having an amino acid sequence sufficiently duplicative of
 CC that of naturally occurring SCF to allow possession of a haematopoietic
 CC biological activity of naturally occurring stem cell factor, or naturally
 CC occurring SCF. Also included are an isolated DNA sequence for use in
 CC securing expression in a prokaryotic or eukaryotic host cell of non-
 CC naturally occurring SCF, a prokaryotic or eukaryotic host cell
 CC transformed or transfected with the DNA, a polypeptide product of the
 CC expression of the DNA in a prokaryotic or eukaryotic host cell, an
 CC isolated DNA sequence coding for prokaryotic or eukaryotic host
 CC expression of non-naturally occurring SCF, a DNA sequence coding for a
 CC polypeptide fragment or polypeptide analogue of naturally-occurring stem
 CC cell factor, a biologically functional plasmid or viral DNA vector
 CC including the DNA sequence above, a prokaryotic or eukaryotic host cell
 CC stably transformed or transfected with the DNA, a polypeptide having part
 CC or all of amino acid sequence encoded by composite nucleic acid sequence
 CC of human SCF cDNA, human SCF cDNA sequence obtained from HT1080
 CC fibrosarcoma cell line, or human SCF cDNA obtained from 5637 bladder
 CC carcinoma cell line (and having one or more of in vitro biological
 CC activity of naturally-occurring stem cell factor, and an antibody (Ab)
 CC specifically binding SCF. SCF is useful for treating leukopenia,
 CC thrombocytopoiesis, anaemia, and enhancing engraftment of bone marrow
 CC during transplantation in a mammal. SCF is useful enhancing bone marrow

CC recovery in treatment of radiation, chemical, or chemotherapeutic induced
 CC bone marrow aplasia or myelosuppression which involves treating patients
 CC with therapeutically effective doses of SCF. SCF is useful for treating
 CC acquired immune deficiency, neoplasia, nerve damage, infertility,
 CC intestinal damage, and a myeloproliferative disorder. SCF is useful for
 CC transfecting early haematopoietic progenitor cells with a gene which
 CC involves culturing early haematopoietic progenitor cells with SCF, and
 CC transfecting the cultured cells with a gene. SCF is useful for
 CC transfecting a gene to a mammal which involves culturing early
 CC haematopoietic progenitor cells with SCF, transfecting the cultured cells
 CC with a gene, and administering the cultured cell to the mammal. SCF is
 CC useful for treating various haematopoietic disorders, aplastic anaemia,
 CC myelofibrosis, myelocytosis, osteopetrosis, metastatic carcinoma, acute
 CC leukaemia, multiple myeloma, Hodgkin's disease, lymphoma, Gaucher's
 CC disease, Niemann-Pick disease, Diamond-Blackfan anaemia (DBA), Fanconi's
 CC anaemia. SCF is useful for enhancing the efficiency of gene therapy, for
 CC enhancing haematopoietic recovery after acute blood loss. The present
 CC sequence is a human SCF protein sequence.
 XX
 XX Sequence 245 AA;

Query Match 100.0%; Score 1262; DB 8; Length 245;
 Best Local Similarity 100.0%; Pred. NO. 3e-121;
 Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MKKTQTWILTCIYLQALLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
 DB 1 MKKTQTWILTCIYLQALLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
 QY 61 MDVLPSCWCISEMVVQLSDSLTDLDPKFSNISGLSNYSIIDKLVINVDLVECKENSS 120
 DB 61 MDVLPSCWCISEMVVQLSDSLTDLDPKFSNISGLSNYSIIDKLVINVDLVECKENSS 120
 QY 121 KDLKSKFSKPEPLRFTPEEFRIENRSDAPKDFVASETSDCVVSTLSPEKGAKNPP 180
 DB 121 KDLKSKFSKPEPLRFTPEEFRIENRSDAPKDFVASETSDCVVSTLSPEKGAKNPP 180
 QY 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENTIQINEDNISMLOEKER 240
 DB 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENTIQINEDNISMLOEKER 240
 QY 241 EFQEV 245
 DB 241 EFQEV 245

RESULT 15
 ID ADW93108 standard; protein; 245 AA.
 XX
 AC ADW93108;
 XX 21-APR-2005 (first entry)
 DT Human Stem Cell Factor, SEQ ID 63.
 DE
 XX Antianemic; Antiemetic; Cytostatic; Anti-HIV; Cardiovascular-Gen.;
 KW CNS-Gen.; Antiparasitic; Antibacterial; Immunosuppressive;
 KW Antiinflammatory; Fungicide; Antifertility; AIDS; aplastic anemia;
 KW paroxysmal nocturnal hemoglobinuria; osteopetrosis; acute leukemia;
 KW multiple myeloma; hodgkins disease; lymphoma; gauchers disease;
 KW niemann pick disease; sarcoidosis; plasmodium infection;
 KW vitamin deficiency; hypopigmentation; vitiligo; infertility;
 KW chronic myelocytic leukemia; cell proliferation; Stem Cell factor.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Peptide 1..25
 FT Protein /label= Signal_peptide
 FT 26..245
 FT /label= Mature_protein
 XX

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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 22, 2006, 18:13:23 ; Search time 20.2479 Seconds
(without alignments)
1164.223 Million cell updates/sec

Title: US-10-620-642-63

Perfect score: 1262

Sequence: 1 MKKTQWTLTCIYLQLLFN.....NEEDNEISMLQEKREPOEV 245

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : PIR_80.*

1: pir1.*

2: pir2.*

3: pir3.*

4: pir4.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1262	100.0	245	2 B61190	mast cell growth f
2	1231	97.5	273	2 A35974	mast cell growth f
3	1037.5	82.2	274	2 I46575	c-kit ligand - pig
4	1022	81.0	245	2 A37934	mast cell growth f
5	1018.5	80.7	274	2 S47571	stem cell factor,
6	1014.5	80.4	274	2 I46929	stem cell factor -
7	991	78.5	273	2 S65801	mast cell growth f
8	749.5	59.4	202	2 S58313	stem cell factor p
9	721	57.1	201	2 B35974	stem cell factor p
10	605	47.9	253	2 S70367	stem cell factor s
11	584	46.3	287	2 JN0637	stem cell factor p
12	583	46.2	287	2 S70366	stem cell factor p
13	491.5	38.9	124	2 S29052	stem cell factor -
14	175.5	13.9	51	2 B35971	mast cell growth f
15	172.5	13.7	49	2 A35971	mast cell growth f
16	97.5	7.7	402	2 T93062	probable advanced
17	97	7.7	482	2 S37845	transcription init
18	97	7.7	1447	2 F82909	hypothetical prote
19	93.5	7.4	647	2 F90595	conserved hypothet
20	93.5	7.4	3227	2 T37964	probable ubiquitin
21	92.5	7.3	512	2 G86773	citrate (pro-3S)-1
22	92.5	7.3	534	2 T23425	hypothetical prote
23	92	7.3	420	2 E90553	hypothetical prote
24	92	7.3	821	2 AD1507	probable secreted
25	92	7.3	1174	1 HJBYDH	helicase (EC 3.6.1
26	91.5	7.3	295	2 AC2939	hypothetical prote
27	91.5	7.3	309	2 D98343	lactose transport
28	91.5	7.3	1993	2 T30902	sodium channel SCA
29	91	7.2	378	2 F64300	formate dehydrogen

ALIGNMENTS

RESULT 1

B61190

mast cell growth factor, short form precursor - human

N:Alternate names: kit ligand, short form; stem cell factor, short form

C:Species: Homo sapiens (man)

C>Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 09-Jul-2004

C:Accession: B61190

R:Anderson, D.M.; Williams, D.E.; Tushinski, R.; Gimpel, S.; Eisenman, J.; Cannizzaro, J.

Cell Growth Differ. 2, 373-378, 1991

A:Title: Alternate splicing of mRNAs encoding human mast cell growth factor and localiza

A:Reference number: A61190; MUID:92172791; PMID:1724381

A:Accession: B61190

A>Status: nucleic acid sequence not shown; not compared with conceptual translation

A:Molecule type: mRNA

A:Residues: 1-245 <AND>

A:Cross-references: UNIPROT:P21583; UNIPARC:UPI000002B351

C:Comment: Alternative splicing produces this short form in which a predicted cleavage

C:Genetics:

A:Gene: GDB:M6F

A:Cross-references: GDB:128026; OMIM:184745

A:Map position: 12q22-12q22

C:Superfamily: mouse mast cell growth factor

C:Keywords: alternative splicing; glycoprotein; transmembrane protein

F:1-25/Domain: signal sequence #status predicted <SIG>

F:187-209/Domain: transmembrane #status predicted <TMN>

F:90,97,118,145/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 100.0%; Score 1262; DB 2; Length 245;

Best Local Similarity 100.0%; Pred. No. 4.8e-94;

Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MKKTQWTLTCIYLQLLFNPLVKTEGICRRNVNNVKDVKLVANLPKDYMITLKYVPG	60
Db	1	MKKTQWTLTCIYLQLLFNPLVKTEGICRRNVNNVKDVKLVANLPKDYMITLKYVPG	60
Qy	61	MDVLPSCHWISEMVVQLSDSLTLLDKFNSISYIIIDKLVNIIVDDLVECVKNS	120
Db	61	MDVLPSCHWISEMVVQLSDSLTLLDKFNSISYIIIDKLVNIIVDDLVECVKNS	120
Qy	121	KDLKKSPKSPRLFTPEEPFRINRSIDAFKDFVASETSDCVSVSTLSPKGAKNPP	180
Db	121	KDLKKSPKSPRLFTPEEPFRINRSIDAFKDFVASETSDCVSVSTLSPKGAKNPP	180
Qy	181	GDSSLHWAMALPALFSLIIGFAFCALYWKCRQPSLTRAVENIQINEDNEISMLQEK	240
Db	181	GDSSLHWAMALPALFSLIIGFAFCALYWKCRQPSLTRAVENIQINEDNEISMLQEK	240
Qy	241	EFQEV 245	
Db	241	EFQEV 245	

ATP-dependent Clp.
hypothetical prote
hypothetical prote
hypothetical prote
conserved hypothet
hypothetical prote
genome polyprotein
phosphoenolpyruvat
hypothetical prote
replication initia
hypothetical prote
hypothetical prote
phosphoenolpyruvat
hypothetical prote
hypothetical prote
hypothetical prote

RESULT 2

A35974
mast cell growth factor precursor - human
N:Alternate names: kit ligand; stem cell factor
C:Species: Homo sapiens (man)
C>Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
C:Accession: A35974; A61190
R:Martin, F.H.; Suggs, S.V.; Langley, K.E.; Lu, H.S.; Ting, J.; Okino, K.H.; Morris, C.F.
S: J.C.; Patel, A.C.; Fisher, E.F.; Erjavec, H.O.; Herrera, C.J.; Wypych, J.; Sachdev, R.
Cell 63, 203-211, 1990
A:Title: Primary structure and functional expression of rat and human stem cell factor
A:Reference number: A35974; MUID:91004219; PMID:2208279
A:Accession: A35974
A:Molecule type: mRNA
A:Residues: 1-273 <MAG>
A:Cross-references: UNIPROT:P21583; UNIPARC:UPI000002D482; GB:M59964; NID:G337933; PIDN:
R:Anderson, D.M.; Williams, D.E.; Tushinski, R.; Gimpel, S.; Eisenman, J.; Cannizzaro, I.
Cell Growth Differ. 2, 373-378, 1991
A:Title: Alternate splicing of mRNAs encoding human mast cell growth factor and localized
A:Reference number: A61190; MUID:92172791; PMID:1724381
A:Accession: A61190
A:Status: nucleic acid sequence not shown; not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 1-273 <AND>
A:Cross-references: UNIPARC:UPI000002D482
C:Genetics:
A:Gene: GDB:M6F
A:Cross-references: GDB:128026; OMIM:184745
A:Map position: 12q22-12q22
C:Superfamily: mouse mast cell growth factor
C:Keywords: alternative splicing; extracellular protein; glycoprotein; transmembrane pro
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-273/Product: mast cell growth factor #status predicted <MCS>
F:26-189/Product: (or 26-190) mast cell growth factor, soluble form #status predicted <M
F:215-237/Domain: transmembrane #status predicted <TMW>
F:90,97,118,145,195/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 97.5%; Score 1231; DB 2; Length 273;
Best Local Similarity 89.4%; Pred. No. 1.7e-91;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;
QY 1 MKKTQTWLTCTIYQLLLFNLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPG 60
DB 1 MKKTQTWLTCTIYQLLLFNLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPG 60
QY 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
DB 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSKSPKSPRLFTPEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKG----- 174
DB 121 KDLKSKSPKSPRLFTPEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSVT 180
QY 175 -----KAKNPPGDSSSLHWAAMALPALFSLIIGFAPGALYWK 212
DB 161 KPFMLPPVAASSLRNDSSSNRKAQNPQDSSSLHWAAMALPALFSLIIGFAPGALYWK 240
QY 213 QPSLTRAVENTIQTNEEDNEISMLOEKEREFEV 245
DB 241 QPSLTRAVENTIQTNEEDNEISMLOEKEREFEV 273

RESULT 3

I46575
c-kit ligand - pig
C:Species: Sus scrofa domestica (domestic pig)
C>Date: 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change 09-Jul-2004
C:Accession: I46575
R:Zhang, Z.; Anthony, R.V.
Biol. Reprod. 50, 95-102, 1994
A:Title: Porcine stem cell factor/c-kit ligand: its molecular cloning and localization
A:Reference number: I46575; MUID:94146218; PMID:7508758
A:Accession: I46575

A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-274 <ZHA>
A:Cross-references: UNIPROT:Q29030; UNIPARC:UPI0000135640; GB:L07786; NID:G164420; PIDN:
C:Superfamily: mouse mast cell growth factor

Query Match 82.2%; Score 1037.5; DB 2; Length 274;
Best Local Similarity 75.2%; Pred. No. 5.9e-76;
Matches 206; Conservative 22; Mismatches 17; Indels 29; Gaps 2;
QY 1 MKKTQTWLTCTIYQLLLFNLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPG 60
DB 1 MKKTQTWLTCTIYQLLLFNLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPG 60
QY 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
DB 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSKSPKSPRLFTPEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKG----- 174
DB 121 ENVKKSKSPKSPRLFTPEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSV 180
QY 175 -----KAKNPPGDSSSLHWAAMALPALFSLIIGFAPGALYWK 211
DB 181 TKPFMLPPVAASSLRNDSSSNRKAQNPQDSSSLHWAAMALPALFSLIIGFAPGALYWK 240
QY 212 QPSLTRAVENTIQTNEEDNEISMLOEKEREFEV 245
DB 241 KOPNLTRTVENTIQTNEEDNEISMLOEKEREFEV 274

RESULT 4

A37934
mast cell growth factor precursor (version 2) - mouse
N:Alternate names: KL-2 protein
C:Species: Mus musculus (house mouse)
C>Date: 26-Jul-1991 #sequence_revision 26-Jul-1991 #text_change 09-Jul-2004
C:Accession: A37934; B43751
R:Flanagan, J.G.; Chan, D.C.; Leder, P.
Cell 64, 1025-1035, 1991
A:Title: Transmembrane form of the kit ligand growth factor is determined by alternative
A:Reference number: A37934; MUID:91160046; PMID:1705866
A:Accession: A37934
A:Molecule type: mRNA
A:Residues: 1-245 <FLA>
A:Cross-references: UNIPROT:P20826; UNIPARC:UPI000002B352; GB:M64262
R:Huang, E.J.; Nocka, K.H.; Buck, J.; Besmer, P.
Mol. Biol. Cell 3, 349-362, 1992
A:Title: Differential expression and processing of two cell associated forms of the kit-
A:Reference number: A43751; MUID:92330001; PMID:1378327
A:Accession: B43751
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-173 'R', 175-186 'L', 188-245 <HUA>
A:Cross-references: UNIPARC:UPI0000179560; GB:S04534
A:Note: the authors translated the codon TTG for residue 187 as Trp
C:Superfamily: mouse mast cell growth factor

Query Match 81.0%; Score 1022; DB 2; Length 245;
Best Local Similarity 80.8%; Pred. No. 9.1e-75;
Matches 198; Conservative 19; Mismatches 28; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYQLLLFNLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPG 60
DB 1 MKKTQTWLTCTIYQLLLFNLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPG 60
QY 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
DB 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
QY 121 KDLKSKSPKSPRLFTPEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKGAKNPP 180
DB 121 KNKESPKRSPKSPRLFTPEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKGAKNPP 180

A;Cross-references: UNIPARC:UPI000017955E; GB:M59912
R;Zeebo, K.M.; Williams, D.A.; Geissler, E.N.; Broudy, V.C.; Martin, F.H.; Atkins, H.L.;
Cattanach, B.M.; Galli, S.J.; Suggs, S.V.
Cell 63, 213-224, 1990
A;Title: Stem cell factor is encoded at the S1 locus of the mouse and is the ligand for
A;Reference number: A35975; MUID:91004220; PMID:1698556
A;Accession: A35975
A;Molecule type: mRNA
A;Residues: 1-201 <ZS>
A;Cross-references: UNIPARC:UPI000016D02D; GB:M59915; PIDN:AAA40095.1; PID:
R;Zeebo, K.M.; Wypych, J.; McNiece, I.K.; Lu, H.S.; Smith, K.A.; Karkare, S.B.; Sachdev,
A.; Langley, K.E.
Cell 63, 195-201, 1990
A;Title: Identification, purification, and biological characterization of hematopoietic
A;Reference number: A35973; MUID:91004218; PMID:2208278
A;Accession: A35973
A;Status: preliminary
A;Molecule type: protein
A;Residues: 27-29, 'R', 31-39 <ZS2>
A;Cross-references: UNIPARC:UPI000017955F
R;Brannan, C.I.; Bedell, M.A.; Resnick, J.L.; Eppig, J.J.; Handel, M.A.; Williams, D.E.;
Genes Dev. 6, 1832-1842, 1992
A;Title: Developmental abnormalities in Steel17H mice result from a splicing defect in
A;Reference number: A44071; MUID:93012940; PMID:1383087
A;Accession: I48768
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-206, 'S', 208-273 <RES>
A;Cross-references: UNIPARC:UPI000016CA07; EMBL:X68989; NID:g395283; PIDN:CAA48778.1; PI
C;Genetics:
A;Gene: SLF
A;Map position: 10
A;Superfamily: mouse mast cell growth factor
C;Keywords: extracellular protein; glycoprotein; transmembrane protein

Query Match 78.5%; Score 991; DB 2; Length 273;
Best Local Similarity 72.2%; Pred. No. 3.2e-72;
Matches 197; Conservative 19; Mismatches 29; Indels 28; Gaps 1;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIDKLVNIYDDLVCEVKENS 120
DB 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIDKLVNIYDDLVCEVKENS 120

QY 121 KDLKSKSPKPRPLFTPEEFRIFNRSIDAFKDFVVASSETSDCVVSTLSPEK 174
DB 121 KDLKSKSPKPRPLFTPEEFRIFNRSIDAFKDFVVASSETSDCVVSTLSPEK 174

RESULT 8
S58313
stem cell factor precursor - sheep (fragment)
C;Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 14-Jan-1996 #sequence_revision 01-Mar-1996 #text_change 09-Jul-2004
C;Accession: S58313
R;McInnes, C.J.; Logan, M.; Falconer, V.M.; Rawlins, P.; Huntly, J.; Haig, D.
submitted to the EMBL Data Library, August 1995
A;Description: Molecular cloning and biological activity of ovine stem cell factor.
A;Reference number: S58313
A;Accession: S58313
A;Status: preliminary
A;Molecule type: mRNA

A;Residues: 1-202 <MCI>
A;Cross-references: UNIPROT:P79368; UNIPARC:UPI000016C4E5; EMBL:Z50743; NID:g940807; PID:
C;Superfamily: mouse mast cell growth factor

Query Match 59.4%; Score 749.5; DB 2; Length 202;
Best Local Similarity 83.9%; Pred. No. 5.5e-53;
Matches 146; Conservative 15; Mismatches 12; Indels 1; Gaps 1;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIDKLVNIYDDLVCEVKENS 120
DB 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIDKLVNIYDDLVCEVKENS 120

QY 121 KDLKSKSPKPRPLFTPEEFRIFNRSIDAFKDFVVASSETSDCVVSTLSPEK 173
DB 121 ENVKKSKSPKPRPLFTPEEFRIFNRSIDAFKDFVVASSETSDCVVSTLSPEK 174

RESULT 9
B35974
stem cell factor protein precursor - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
C;Accession: B35974; A39805
R;Martin, F.H.; Suggs, S.V.; Langley, K.E.; Lu, H.S.; Ting, J.; Okino, K.H.; Morris, C.F.
s, J.C.; Patel, A.C.; Fisher, E.F.; Erjavec, H.O.; Herrera, C.J.; Wypych, J.; Sachdev,
Cell 63, 203-211, 1990
A;Title: Primary structure and functional expression of rat and human stem cell factor D
A;Reference number: A35974; MUID:91004219; PMID:2208279
A;Accession: B35974
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-201 <MAR>
A;Cross-references: UNIPROT:P21581; UNIPARC:UPI0000144090; GB:M59966; NID:g206861; PIDN:
R;Lu, H.S.; Clogston, C.L.; Wypych, J.; Fausset, P.R.; Lauren, S.; Mendiaz, E.A.; Zeebo,
J. Biol. Chem. 266, 8102-8107, 1991
A;Title: Amino acid sequence and post-translational modification of stem cell factor iso
A;Reference number: A39805; MUID:91217037; PMID:1708771
A;Accession: A39805
A;Status: preliminary
A;Molecule type: protein
A;Residues: 'E', 27-190 <LUA>
A;Cross-references: UNIPARC:UPI000014F57C
C;Superfamily: mouse mast cell growth factor

Query Match 57.1%; Score 721; DB 2; Length 201;
Best Local Similarity 79.8%; Pred. No. 1.1e-50;
Matches 138; Conservative 15; Mismatches 20; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIDKLVNIYDDLVCEVKENS 120
DB 61 MDVLPSCWISWVQVLSLTLDDKFSNISEGLSNYSIIDKLVNIYDDLVCEVKENS 120

QY 121 KDLKSKSPKPRPLFTPEEFRIFNRSIDAFKDFVVASSETSDCVVSTLSPEK 173
DB 121 KDLKSKSPKPRPLFTPEEFRIFNRSIDAFKDFVVASSETSDCVVSTLSPEK 173

RESULT 10
S70367
stem cell factor short form precursor - quail
C;Species: Coturnix coturnix (quail)
C;Date: 06-Dec-1996 #sequence_revision 25-Apr-1997 #text_change 21-Jul-2000
C;Accession: S70367
R;Petitte, J.N.; Kulik, M.J.
Biochim. Biophys. Acta 1307, 149-151, 1996

A>Title: Cloning and characterization of cDNAs encoding two forms of avian stem cell factor
A:Reference number: S70366; MUID:96283808; PMID:8679698
A:Accession: S70367
A:Molecule type: mRNA
A:Residues: 1-253 <PET>
A:Cross-references: UNIPARC:UPI000002B34F; EMBL:U43079; NID:g1150877; PIDN:AAC59934.1; F
C:Superfamily: mouse mast cell growth factor
C:Keywords: growth factor; transmembrane protein
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-253/Product: stem cell factor short form #status predicted <MAT>
F:192-216/Domain: transmembrane #status predicted <TMM>

Query Match 47.9%; Score 605; DB 2; Length 253;
Best Local Similarity 49.8%; Pred. No. 2.9e-41;
Matches 126; Conservative 48; Mismatches 71; Indels 8; Gaps 5;

QY 1 MKKTOTWLTCTLYQLLFPNPLVKTGICRNRVTNNVDVKLVANLPKDYMITLKYVPG 60
DB 1 MKKAQTWITCFCLQLLLNPLVKTQSSCGNPVTDVNDIAKLVGNLPNDYILITLKYVPK 60

QY 61 MDVLPFHCWISBMYVQLSDSLTDLIDKF---SNISEGLSNYSIIDKLVNIVDDLVECVKE 117
DB 61 MDSLPHNCWHLWVPEFSRSLHNLQKFPVDISDMSDVLNYSIINNLTIRINDMACLAF 120

QY 118 NSSKD-LKSKPKSPERLFTPEEPFRINRSIDAFKDFVASETSDCVVSSTL-SPEKKG 175
DB 121 DKNKDFIKENGHLYEEDRFIPENFRNFRTIEVYKEFADSLDKNDKIMPSTVETPENDS 180

QY 176 AKNPFGDSSLHWAAMALPALPSLTIGAFGALYWKKROP-SLTRAVENTIQTIN--EEDNEI 232
DB 181 ALGFTSSSLQGISALTSLLSLLGILGVYWKTHPKRPSNETTQCHGCQEENEI 240

QY 233 SMLQEKEREFOV 245
DB 241 SMLQEKEREHLQV 253

RESULT 11
JN0637
stem cell factor precursor - chicken
C:Species: Gallus gallus (chicken)
C:Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 09-Jul-2004
C:Accession: JN0637
R:Zhou, J.H.; Ohtaki, M.; Sakurai, M.
Gene 127, 269-270, 1993
A>Title: Sequence of a cDNA encoding chicken stem cell factor.
A:Reference number: JN0637; MUID:93273244; PMID:7684722
A:Accession: JN0637
A:Molecule type: mRNA
A:Residues: 1-287 <ZHO>
A:Cross-references: UNIPROT:Q09108; UNIPARC:UPI000013563C; GB:D13516; NID:g391648; PIDN:
A:Experimental source: brain
C:Superfamily: mouse mast cell growth factor
C:Keywords: growth factor; transmembrane protein
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-287/Product: stem cell factor #status predicted <MAT>
F:226-248/Domain: transmembrane #status predicted <TMM>

Query Match 46.3%; Score 584; DB 2; Length 287;
Best Local Similarity 44.6%; Pred. No. 1.7e-39;
Matches 128; Conservative 46; Mismatches 79; Indels 42; Gaps 7;

QY 1 MKKTOTWLTCTLYQLLFPNPLVKTGICRNRVTNNVDVKLVANLPKDYMITLKYVPG 60
DB 1 MKKAQTWITCFCLQLLLNPLVKAQSSCGNPVTDVNDIAKLVGNLPNDYILITLKYVPK 60

QY 61 MDVLPFHCWISBMYVQLSDSLTDLIDKF---SEGLSNYSIIDKLVNIVDDLVECVKE 117
DB 61 MDSLPHNCWHLWVPEFSRSLHNLQKFSIDMSDVLNYSIINNLTIRINDMACLAF 120

QY 118 NSSKD-LKSKPKSPERLFTPEEPFRINRSIDAFKDFVASETSDCVVSSTL-SPEKKG 175
DB 121 DKNKDFIKENGHLYEEDRFIPENFRNFRTIEVYKEFADSLDKNDKIMPSTVETPENDS 180

QY 176 -----AKNPP-----GDSLSHWAAMALPALPSLTIG 201
DB 181 RVAVTKTISFPFVAASLRNDSIGNTSSNKNKEALGFISSSSLQGISALTSLLSLLIG 240

QY 202 FAFGALYWKKROP-SLTRAVENTIQTIN--EEDNEISMLOEKEREFOV 245
DB 241 FILGALYWKTHPKSRPESNETTQCHGCQEENEISMLOEKEREHLQV 287

RESULT 12
S70366
stem cell factor long form precursor - quail
C:Species: Coturnix coturnix (quail)
C:Date: 06-Dec-1996 #sequence_revision 25-Apr-1997 #text_change 21-Jul-2000
C:Accession: S70366
R:Petitte, J.N.; Kulik, M.J.
Biochim. Biophys. Acta 1307, 149-151, 1996
A>Title: Cloning and characterization of cDNAs encoding two forms of avian stem cell fa
A:Reference number: S70366; MUID:96283808; PMID:8679698
A:Accession: S70366
A:Molecule type: mRNA
A:Residues: 1-287 <PET>
A:Cross-references: UNIPARC:UPI000013563D; EMBL:U43078; NID:g1150875; PIDN:AAC59933.1; F
C:Superfamily: mouse mast cell growth factor
C:Keywords: growth factor; transmembrane protein
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-287/Product: stem cell factor long form #status predicted <MAT>
F:226-250/Domain: transmembrane #status predicted <TMM>

Query Match 46.2%; Score 583; DB 2; Length 287;
Best Local Similarity 44.3%; Pred. No. 2e-39;
Matches 127; Conservative 47; Mismatches 71; Indels 42; Gaps 7;

QY 1 MKKTOTWLTCTLYQLLFPNPLVKTGICRNRVTNNVDVKLVANLPKDYMITLKYVPG 60
DB 1 MKKAQTWITCFCLQLLLNPLVKTQSSCGNPVTDVNDIAKLVGNLPNDYILITLKYVPK 60

QY 61 MDVLPFHCWISBMYVQLSDSLTDLIDKF---SNISEGLSNYSIIDKLVNIVDDLVECVKE 117
DB 61 MDSLPHNCWHLWVPEFSRSLHNLQKFPVDISDMSDVLNYSIINNLTIRINDMACLAF 120

QY 118 NSSKD-LKSKPKSPERLFTPEEPFRINRSIDAFKDFVASETSDCVVSSTL-SPEKKG 175
DB 121 DKNKDFIKENGHLYEEDRFIPENFRNFRTIEVYKEFADSLDKNDKIMPSTVETPENDS 180

QY 176 -----AKNPP-----GDSLSHWAAMALPALPSLTIG 201
DB 181 RVAVTKTISFPFVAASLRNDSIGNTSSNKNKEALGFISSSSLQGISALTSLLSLLIG 240

QY 202 FAFGALYWKKROP-SLTRAVENTIQTIN--EEDNEISMLOEKEREFOV 245
DB 241 FILGALYWKTHPKSRPESNETTQCHGCQEENEISMLOEKEREHLQV 287

RESULT 13
S29052
stem cell factor - human (fragments)
C:Species: Homo sapiens (man)
C:Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 09-Jul-2004
C:Accession: S29052
R:Lu, H.S.; Clogston, C.L.; Wypych, J.; Parker, V.P.; Lee, T.D.; Swiderek, K.; Baltera
J.; Langley, K.E.
Arch. Biochem. Biophys. 298, 150-158, 1992
A>Title: Post-translational processing of membrane-associated recombinant human stem cel
A:Reference number: S29052; MUID:92398336; PMID:1381905
A:Accession: S29052
A>Status: preliminary
A:Molecule type: protein
A:Residues: 1-13;14-30;31-46;47-59;60-86;87-95;96-107;108-124 <LUH>
A:Cross-references: UNIPROT:Q7M4N8; UNIPARC:UPI0000179563; UNIPARC:UPI0000179564; UNIPAR
IPARC:UPI000017956A
C:Superfamily: mouse mast cell growth factor

Job time : 21.2479 secs

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Query Match      38.9%; Score 491.5; DB 2; Length 124;
Best Local Similarity 72.3%; Pred. No. 1.5e-32;
Matches 107; Conservative 0; Mismatches 0; Indels 41; Gaps 4;

QY 26 EGICRNRVTNNVKDVTKLAVANLPKDYMITLKYVPGMDVLPCHCWISEMVVQLSDSLTDLL 85
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1 EGICRNRVTNNVK-----DVLPSHCWISEMVVQLS----- 30

QY 86 DKFSNISISGLNYSIIDKLNVIVDDLVCEVKENSCKLKKSKSPPEPLFTPEEPFRIPN 145
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 31 DKFSNISISGLNYSII-----DDLVECVKENSCKLKKSKSPPEPLFTPEEPFRIFN 83

QY 146 RSIDAFKDFVASETSCVVSSTLSPEK 173
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 84 RSI-----DFVASETSCVVSSTLSPEK 107

RESULT 14
B35971
mast cell growth factor - mouse (fragment)
C:Species: Mus musculus (house mouse)
C:Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
C:Accession: B35971
R:Williams, D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Ness, K.; March, C.J.; Park, I.
Cell 63, 167-174, 1990
A:Title: Identification of a ligand for the c-kit proto-oncogene.
A:Reference number: A35971; PMID:91004215; PMID:1698553
A:Accession: B35971
A>Status: preliminary
A:Molecule type: protein
A:Residues: 1-51.<WIL>
A:Cross-references: UNIPROT:P20826; UNIPARC:UPI0000179562
C:Superfamily: mouse mast cell growth factor
C:Keywords: transmembrane protein

Query Match      13.9%; Score 175.5; DB 2; Length 51;
Best Local Similarity 72.3%; Pred. No. 1.2e-07;
Matches 34; Conservative 5; Mismatches 7; Indels 1; Gaps 1;

QY 28 ICRNRVTNNVKDVTKLAVANLPKDYMITLKYVPGMDVLPCHCWISEMV 74
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 3 ICGNPVTDNVKDIITKLAVANLPNDYMITLNYVAGMDVLPF--WWLDDMI 48

RESULT 15
A35971
mast cell growth factor - mouse (fragment)
C:Species: Mus musculus (house mouse)
C:Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
C:Accession: A35971
R:Williams, D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Ness, K.; March, C.J.; Park, I.
Cell 63, 167-174, 1990
A:Title: Identification of a ligand for the c-kit proto-oncogene.
A:Reference number: A35971; PMID:91004215; PMID:1698553
A:Accession: A35971
A>Status: preliminary
A:Molecule type: protein
A:Residues: 1-49.<WIL>
A:Cross-references: UNIPROT:P20826; UNIPARC:UPI0000179561
C:Superfamily: mouse mast cell growth factor
C:Keywords: transmembrane protein

Query Match      13.7%; Score 172.5; DB 2; Length 49;
Best Local Similarity 73.5%; Pred. No. 2e-07;
Matches 36; Conservative 4; Mismatches 6; Indels 3; Gaps 2;

QY 28 ICRNRVTNNVKDVTKLAVANLPKDYMITLKYVPGMDVLPCHCWISEMVQ 76
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 3 ICGNPVTDNVKDIITKLAVANLPNDYMITLNYVAGMDVLPF--WY-DMVIQ 48

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OM protein - protein search, using sw model

Run on: February 22, 2006, 18:05:51 ; Search time 126.212 Seconds
(without alignments)
1369.555 Million cell updates/sec

Title: US-10-620-642-63

Perfect score: 1262

Sequence: 1 MKKTQTWLTCTIYLQLLFFN.....NEEDNEISMLQEKREFOEV 245

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : UniProt_05.80.*

1: uniprot_sprot.*

2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1255	99.4	245	2 Q86524_9PRIM	Q86524 papio cynoc
2	1231	97.5	273	1 SCF HUMAN	P21583 homo sapien
3	1053.5	83.5	274	1 SCF HORSE	Q95md2 equus cabal
4	1051.5	83.3	274	1 SCF FELCA	P79169 felis silve
5	1037.5	82.2	274	1 SCF_PIG	Q29030 sus scrofa
6	1023	81.1	245	2 Q54A14_RAT	Q54a14 rattus norv
7	1021.5	80.9	274	1 SCF CAPHI	Q95m19 capra hircu
8	1018.5	80.7	274	1 SCF BOVIN	Q28132 bos taurus
9	1014.5	80.4	274	1 SCF CANFA	Q06220 canis fami
10	1014.5	80.4	274	1 SCF MUSVI	Q95n18 mustela vis
11	1005	79.6	238	2 Q68D22_HUMAN	Q68d22 homo sapien
12	992	78.6	273	1 SCF RAT	P21581 rattus norv
13	991	78.5	267	1 SCF MOUSE	P20826 mus musculu
14	990.5	78.5	267	1 SCF SHEEP	P79368 ovis aries
15	754	59.7	164	2 Q864L9_MACMU	Q864l9 macaca mula
16	715	56.7	208	2 Q64384_9MURI	Q64384 mus sp. c-k
17	715	56.7	208	2 Q78ED8_MOUSE	Q78ed8 mus musculu
18	584	46.3	287	1 SCF CHICK	Q09108 gallus gall
19	583	46.2	287	1 SCF COTJA	Q90314 coturnix co
20	509	40.3	123	2 Q61854_MOUSE	Q61854 mus musculu
21	491.5	38.9	124	2 Q7M4N8_HUMAN	Q7m4n8 homo sapien
22	480	38.0	160	2 Q8C9K1_MOUSE	Q8c9k1 mus musculu
23	339	28.9	271	2 Q9YGP2_ANGME	Q9ygp2 ambystoma m
24	315	25.0	270	2 Q7ZXV0_XENLA	Q7zxv0 xenopus lae
25	286	22.7	270	2 Q8AYN7_XENLA	Q8ayn7 xenopus lae
26	277	21.9	270	2 Q6DTW3_XENLA	Q6dtw3 xenopus lae
27	207.5	16.4	272	2 Q56JH6_BRARE	Q56jh6 brachydanio
28	153.5	12.2	234	2 Q4S1A5_TETNG	Q4s1a5 tetraodon n
29	145	11.5	36	2 Q8SPM7_CANFA	Q8spm7 canis fami
30	136	10.8	267	2 Q56JH5_BRARE	Q56jh5 brachydanio
31	128	10.1	1697	2 Q8IFM4_PLAF7	Q8ifm4 plasmodium

32	128	10.1	1711	2 Q8MWP2_PLAFA	Q8mwp2 plasmodium
33	128	10.1	1713	2 Q8MWP1_PLAFA	Q8mwp1 plasmodium
34	128	10.1	1716	2 Q8MWH2_PLAFA	Q8mwh2 plasmodium
35	109	8.6	937	2 Q9MAL4_ARATH	Q9mal4 arabidopsis
36	107.5	8.5	330	2 Q424Q3_PLABE	Q424q3 arabidopsis
37	106.5	8.4	1665	2 Q6YA77_PLABE	Q6ya77 plasmodium
38	106	8.4	812	2 Q74191_LACJO	Q74191 lactobacill
39	105.5	8.4	1515	2 Q8IM40_PLAF7	Q8im40 plasmodium
40	103.5	8.2	814	2 Q5CR06_CRYPO	Q5cr06 cryptospori
41	103.5	8.2	814	2 Q5CLA9_CRYHO	Q5cla9 cryptospori
42	102.5	8.1	919	2 Q9LPD8_ARATH	Q9lpd8 arabidopsis
43	102.5	8.1	1498	2 Q96VK6_EMENI	Q96vk6 emericella
44	102.5	8.1	1498	2 Q9P884_EMENI	Q9p884 emericella
45	102.5	8.1	5542	2 Q7YXX2_CRYPV	Q7yxx2 cryptospori

ALIGNMENTS

RESULT 1
Q86524_9PRIM PRELIMINARY; PRT; 245 AA.
ID Q86524_9PRIM PRELIMINARY; PRT; 245 AA.
AC Q86524_9PRIM PRELIMINARY; PRT; 245 AA.
DT 01-JUN-2003 (TRENBLrel. 24, Created)
DT 01-JUN-2003 (TRENBLrel. 24, Last sequence update)
DT 01-MAR-2004 (TRENBLrel. 26, Last annotation update)
DE Stem cell factor.
DE Stem cell factor.
OS Papio cynocephalus x Papio anubis.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Carchhini;
OC Cercopithecidae; Cercopithecinae; Papio.
OX NCBI_TaxID=208510;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Kalina T. Storek J.;
RL Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY226584; AA072537.1; -, mRNA.
DR HSSP; P21583; 1EXZ.
DR SMR; Q86524; 29-161.
DR GO; GO:0016020; C:membrane; IEA.
DR GO; GO:0005173; P:stem cell factor receptor binding; IEA.
DR GO; GO:0007155; P:cell adhesion; IEA.
DR InterPro; IPR003452; SCF.
DR Pfam; PF02404; SCF; 1.
SQ SEQUENCE 245 AA; 27887 MW; 937B3CAF28D694FA CRC64;

Query Match 99.4%; Score 1255; DB 2; Length 245;
Best Local Similarity 99.2%; Fred. No. 1.1e-90;
Matches 243; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTIYLQLLFFNPLVKTEGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQTWLTCTIYLQLLFFNPLVKTEGICRNRVTNNVKDVKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISSEWVQVLSDSLTLDDKFSNISEGLSNYSIIDKLVNIYVDDLVECVKENS 120
Db 61 MDVLPSCWISSEWVQVLSDSLTLDDKFSNISEGLSNYSIIDKLVNIYVDDLVECVKENS 120
QY 121 KDLKSKSPSPRLPTPEEPFRINRSIDAFKDFVASETSDCVVSSLTSPKGAQKAPP 180
Db 121 KDLKSKSPSPRLPTPEEPFRINRSIDAFKDFVASETSDCVVSSLTSPKGAQKAPP 180
QY 181 GDSLSHWAAMALPALFSLIIGFAGFALVKKRQPSLTRAVENTIQNEEDNEISMLQEKER 240
Db 181 GDSLSHWAAMALPALFSLIIGFAGFALVKKRQPSLTRAVENTIQNEEDNEISMLQEKER 240
QY 241 EFQEV 245
Db 241 EFQEV 245

RESULT 2
SCF_HUMAN

Query Match 97.5%; Score 1231; DB 1; Length 273;
 Best Local Similarity 89.4%; Pred. No. 9.4e-89;
 Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

QY 1 MKKTQTWLTCTIYQLQLLFNPLVTEGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
 DB 1 MKKTQTWLTCTIYQLQLLFNPLVTEGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISWMMVQVLSLTDLLDKFNSISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
 DB 61 MDVLPSCWISWMMVQVLSLTDLLDKFNSISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120

QY 121 KDLKSKSPKPEPRLTPEEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKG----- 174
 DB 121 KDLKSKSPKPEPRLTPEEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSV 180

QY 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAPGALYWK 212
 DB 181 TKPFMLPPVAASSLRNDSSSSNRKASNFTGDSNLQWAMALPAFSLVIGFAPGALYWK 240

QY 213 QPSLTRAVENTIINEEDNEISMLOEKEREFOEV 245
 DB 241 QPSLTRAVENTIINEEDNEISMLOEKEREFOEV 273

RESULT 3

SCF HORSE
 ID - SCF HORSE STANDARD; PRT; 274 AA.
 AC Q95MD2; Q62765; Q95MG7; Q95MG8; Q95N15;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Kit ligand precursor (C-kit ligand) (stem cell factor) (SCF) (Mast cell growth factor) (MGF).
 DE Name=KITLG; Synonyms=MGF, SCF;
 OS Equus caballus (Horse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Perissodactyla; Equidae; Equus.
 OX NCBI_TaxID=9796;
 RN [1]
 RP NUCLEOTIDE SEQUENCE OF 4-264.
 RA Terry R.R., Mickelson J.R., Schmutz S., Cothran E.G., Bailey E.;
 RT "Equus caballus mast cell growth factor (MGF).";
 RL Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.
 RN [2]
 RP NUCLEOTIDE SEQUENCE OF 12-267.
 RA Rieder S., Checa-Cortes M.L., Joerg H., Stranzinger G.;
 RT "An equine sequence homologous to stem cell factor (KIT-ligand).";
 RL Submitted (MAR-1998) to the EMBL/GenBank/DBJ databases.
 RN [3]
 RP NUCLEOTIDE SEQUENCE OF 107-202 AND 227-274.
 RA Terry R.R., Bailey E.F., Cothran E.G.;
 RT "Evaluation of MGF as the candidate gene for Appaloosa spotting.";
 RL Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
 RN [4]
 RP NUCLEOTIDE SEQUENCE OF 147-197.
 RA Castano A.R., Shive Y.-J., Lyons L.A., Laughlin T.F., O'Brien S.J., Murray J.D., Bowling A.T.;
 RT "A primary Human-Horse comparative gene map.";
 RL Submitted (JAN-2000) to the EMBL/GenBank/DBJ databases.
 CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to augment the proliferation of both myeloid and lymphoid hematopoietic progenitors in bone marrow culture. Mediates also cell-cell adhesion. Acts synergistically with other cytokines, probably interleukins (By similarity).
 CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
 CC -!- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a secreted soluble form (By similarity).
 CC -!- PTM: A soluble form is produced by proteolytic processing of the extracellular domain (By similarity).
 CC -!- SIMILARITY: Belongs to the SCF family.

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DR EMBL; AF401625; AAK94474.1; -; mRNA.
 DR EMBL; AF053498; AAC97076.1; -; mRNA.
 DR EMBL; AF367704; AAK63249.1; -; Genomic DNA.
 DR EMBL; AF130770; AAF36716.1; -; Genomic DNA.
 DR SMR; Q95MD2; 29-161.
 DR InterPro; IPR012351; Cytokine_4_hlx.
 DR InterPro; IPR003452; SCF.
 DR PANTHER; PTHR11574; SCF; 1.
 DR Pfam; PF02404; SCF; 1.
 KW Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
 FT SIGNAL 1 25
 FT CHAIN 26 274
 FT TOPO_DOM 26 215
 FT TRANSMEM 216 238
 FT TOPO_DOM 239 274
 FT CARBOHYD 90 90
 FT CARBOHYD 97 97
 FT CARBOHYD 145 145
 FT CARBOHYD 196 196
 FT CARBOHYD 207 207
 FT DISULFID 29 114
 FT DISULFID 68 164
 FT CONFLICT 15 15
 FT CONFLICT 241 241
 FT CONFLICT 241 241
 SQ SEQUENCE 274 AA; 31217 MW; 96C1D4C9059132F2 CRC64;

Query Match 83.5%; Score 1053.5; DB 1; Length 274;
 Best Local Similarity 76.6%; Pred. No. 9.1e-75;
 Matches 210; Conservative 19; Mismatches 16; Indels 29; Gaps 2;

QY 1 MKKTQTWLTCTIYQLQLLFNPLVTEGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
 DB 1 MKKTQTWLTCTIYQLQLLFNPLVTEGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPSCWISWMMVQVLSLTDLLDKFNSISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
 DB 61 MDVLPSCWISWMMVQVLSLTDLLDKFNSISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120

QY 121 KDLKSKSPKPEPRLTPEEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKG----- 174
 DB 121 ENVKSKYKQESRLTPEEPRIFNRSIDAFKDFVVASETSDCVVSTLSPEKDSRVSV 180

QY 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAPGALYWK 211
 DB 181 TKPFMLPPVAASSLRNDSSSSNRKASNFTGDSNLQWAMALPAFSLVIGFAPGALYWK 240

QY 212 QPSLTRAVENTIINEEDNEISMLOEKEREFOEV 245
 DB 241 KPNLTRAVENTIINEEDNEISMLOEKEREFOEV 274

RESULT 4
 SCF FELCA
 ID - SCF FELCA STANDARD; PRT; 274 AA.
 AC P79169;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Kit ligand precursor (C-kit ligand) (stem cell factor) (SCF) (Mast cell growth factor) (MGF).
 DE Name=KITLG; Synonyms=SCF;
 OS Felis silvestris catus (Cat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Felidae; Felinae; Felis.

[illegible]

Qy	175	-----KAKNPPGDSLIHWAALPALFSLITGFAGFYWK 211
Db	181	TKPFMLPVAASLRNDSSNNRKNATNPIDESSIQWVMPACFSLVIGFAFGFYWK 240 :
Qy	212	RQPSLTRAIVENIINEEDNEISMLQEKEREFOEV 245
Db	241	KQNPLRTVENIINEEDNEISMLQEKEREFOEV 274
RESULT 5		
SCF_PIG	STANDARD;	PRT; 274 AA.
ID_SCF_PIG	Q29030;	
AC	01-NOV-1997 (Rel. 35, Created)	
DT	01-NOV-1997 (Rel. 35, Last sequence update)	
DT	10-MAY-2005 (Rel. 47, Last annotation update)	
DE	Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast	
DE	cell growth factor) (MGF).	
GN	Name=KITLG; Synonyms=MGF;	
OS	Sus scrofa (Pig).	
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	
OC	Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;	
OC	Sus.	
NCRI_TaxID=9823;		
[1]		
NUCLEOTIDE SEQUENCE.		
TISSUE=Uterus;		
MEDLINE=94146218; PubMed=7508758;		
Zhang Z., Anthony P.V.;		
"Porcine stem cell factor/c-kit ligand: its molecular cloning and		
localization within the uterus.";		
Biol. Reprod. 50:95-102(1994).		
-I- FUNCTION: Stimulates the proliferation of mast cells. Able to		
augment the proliferation of both myeloid and lymphoid		
hematopoietic progenitors in bone marrow culture. Mediates also		
cell-cell adhesion. Acts synergistically with other cytokines,		
probably interleukins (By similarity).		
-I- SUBUNIT: Homodimer, non-covalently linked (Probable).		
-I- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a		
secreted soluble form (By similarity).		
-I- PTM: A soluble form is produced by proteolytic processing of the		
extracellular domain (By similarity).		
-I- SIMILARITY: Belongs to the SCF family.		

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between the Swiss Institute of Bioinformatics and the EMBL Outstation -		
the European Bioinformatics Institute. There are no restrictions on its		
use as long as its content is in no way modified and this statement is not		
removed.		

EMBL; L07786; AAA53670.1; -; mRNA.		
PIR; I46575; I46575.		
SMR; Q29030; 29-161.		
InterPro; IPRO12351; Cytokine_4_hlx.		
InterPro; IPRO03452; SCF.		
PANTHER; PTHR11574; SCF; 1.		
Pfam; PF02404; SCF; 1		
Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.		
SIGNAL	1 25	By similarity.
CHAIN	26 274	Kit ligand.
FT TOPO_DOM	26 215	Extracellular (Potential).
FT TRANSMEM	216 238	Potential.
FT TOPO_DOM	239 274	Cytoplasmic (Potential).
FT CARBOHYD	90 90	N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD	97 97	N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD	145 145	N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD	196 196	N-linked (GlcNAc. . .) (Potential).
FT DISULFID	29 114	By similarity.
FT DISULFID	68 164	By similarity.
SEQUENCE	274 AA; 31119 MW; FP3C87114D7BA6A6 CRC64;	
Query Match	82.2%;	Score 1037.5; DB 1; Length 274;
Best Local Similarity	75.2%;	Pred. No. 1.7e-73;


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Matches 206; Conservative 22; Mismatches 17; Indels 29; Gaps 2;
Qy 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
Qy 61 MDVLPSCWISVMVQSLSDTLDDKFSNYSISGLSNYSIIDKLVNIYVDDLVECVKENS 120
Db 61 MDVLPSCWISVMVQSLSDTLDDKFSNYSISGLSNYSIIDKLVNIYVDDLVECVKENS 120
Qy 121 KDLKSKFSKSPERLTPPEFFRIFNRSIDAFKDF-VVASSETSDCVSVSTLSPKSG- 174
Db 121 ENVKSSKSPERLTPPEFFRIFNRSIDAFKDFKDLKSWAPKTSVCVISTLPEKDSRVSV 180
Qy 175 -----KAKNPPGSSLSHWAAMALPALFSLIIGFAFGALYWK 211
Db 181 TKPFMLPPVAASSLRNDSSSSNRKASDSDSSSLQWAAVALPAPFSLVIGFAFGALYWK 240
Qy 212 RQPSLTRAVENTIQNEEDNEISMLQEKEREFOEV 245
Db 241 KQPNLTRTVENTIQNEEDNEISMLQEKEREFOEV 274

RESULT 6
Q54A14 RAT PRELIMINARY; PRT; 245 AA.
AC Q54A14;
DT 13-SEP-2005 (TREMELrel. 31, Created)
DT 13-SEP-2005 (TREMELrel. 31, Last sequence update)
DE Stem cell factor KU-2.
GN Name=Scf;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN NUCLEOTIDE SEQUENCE.
RP STRAIN=Shiba; TISSUE=Brain;
RA Yanagisawa N., Tanaka S., Yamanouchi K., Tojo H., Tachi C.;
RT "Identification of splicing isoforms of caprine stem cell factor
RT (gscf) transcripts and expression patterns of the two major isoforms,
RT gscf825 and gscf741, in the brain and the skin of adult and fetal
RT Shiba goats, Capra hircus.";
RL Submitted (MAR-1997) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins (By similarity).
CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a
CC secreted soluble form (By similarity).
CC -!- PTM: A soluble form is produced by proteolytic processing of the
CC extracellular domain (By similarity).
CC -!- SIMILARITY: Belongs to the SCF family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; AB002152; BAB71753.1; -; mRNA.
DR SMR; Q95M19; 29-161.
DR InterPro; IPR012351; Cytokine_4_hlx.
DR InterPro; IPR003452; SCF.
DR PANTHER; PTHR11574; SCF; 1.
DR Pfam; PF02404; SCF; 1.
KW Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
FT SIGNAL 1 25
FT CHAIN 26 274
FT TOPO_DOM 26 215
FT TRANSMEM 216 238
FT TOPO_DOM 239 274
FT CARBOHYD 90 97
FT CARBOHYD 145 145
FT CARBOHYD 196 196
FT DISULFID 29 114
FT DISULFID 68 164
SQ SEQUENCE 274 AA; 31053 MW; BBE669A509BF65D CRC64;

Query Match 80.9%; Score 1021.5; DB 1; Length 274;
Best Local Similarity 74.5%; Pred. No. 3e-72;
Matches 204; Conservative 20; Mismatches 21; Indels 29; Gaps 2;
Qy 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
Qy 61 MDVLPSCWISVMVQSLSDTLDDKFSNYSISGLSNYSIIDKLVNIYVDDLVECVKENS 120
Db 61 MDVLPSCWISVMVQSLSDTLDDKFSNYSISGLSNYSIIDKLVNIYVDDLVECVKENS 120
Qy 121 KDLKSKFSKSPERLTPPEFFRIFNRSIDAFKDFVVASSETSDCVSVSTLSPKSGKAKNPP 180
Db 121 KNVKSLLKPPETNTPPEFFRIFNRSIDAFKDFVVASDTSDDLSTLSPKSGKAKSP 180
Qy 181 GDSSLHWAAMALPALFSLIIGFAFGALYWKQPSLTRAVENTIQNEEDNEISMLQEKER 240
Db 181 EDPGLQWAMALPALISLVIGFAFGALYWKQKQSLTRAVENTIQNEEDNEISMLQEKER 240
Qy 241 EFQEV 245
Db 241 EFQEV 245
```

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RESULT 7
SCF_CAPHI
ID SCF_CAPHI STANDARD; PRT; 274 AA.
AC Q95M19;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Kit ligand precursor (C-kit ligand) (stem cell factor) (SCF) (Mast
DE cell growth factor) (MGF).
DE Name=KITLG; Synonyms=SCF;
OS Capra hircus (Goat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Caprinae; Capra.
OX NCBI_TaxID=9925;
RN NUCLEOTIDE SEQUENCE.
RP STRAIN=Shiba; TISSUE=Brain;
RA Yanagisawa N., Tanaka S., Yamanouchi K., Tojo H., Tachi C.;
RT "Identification of splicing isoforms of caprine stem cell factor
RT (gscf) transcripts and expression patterns of the two major isoforms,
RT gscf825 and gscf741, in the brain and the skin of adult and fetal
RT Shiba goats, Capra hircus.";
RL Submitted (MAR-1997) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins (By similarity).
CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a
CC secreted soluble form (By similarity).
CC -!- PTM: A soluble form is produced by proteolytic processing of the
CC extracellular domain (By similarity).
CC -!- SIMILARITY: Belongs to the SCF family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; AB002152; BAB71753.1; -; mRNA.
DR SMR; Q95M19; 29-161.
DR InterPro; IPR012351; Cytokine_4_hlx.
DR InterPro; IPR003452; SCF.
DR PANTHER; PTHR11574; SCF; 1.
DR Pfam; PF02404; SCF; 1.
KW Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
FT SIGNAL 1 25
FT CHAIN 26 274
FT TOPO_DOM 26 215
FT TRANSMEM 216 238
FT TOPO_DOM 239 274
FT CARBOHYD 90 97
FT CARBOHYD 145 145
FT CARBOHYD 196 196
FT DISULFID 29 114
FT DISULFID 68 164
SQ SEQUENCE 274 AA; 31053 MW; BBE669A509BF65D CRC64;

Query Match 80.9%; Score 1021.5; DB 1; Length 274;
Best Local Similarity 74.5%; Pred. No. 3e-72;
Matches 204; Conservative 20; Mismatches 21; Indels 29; Gaps 2;
Qy 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYVPG 60
Qy 61 MDVLPSCWISVMVQSLSDTLDDKFSNYSISGLSNYSIIDKLVNIYVDDLVECVKENS 120
Db 61 MDVLPSCWISVMVQSLSDTLDDKFSNYSISGLSNYSIIDKLVNIYVDDLVECVKENS 120
Qy 121 KDLKSKFSKSPERLTPPEFFRIFNRSIDAFKDFVVASSETSDCVSVSTLSPKSGKAKNPP 180
Db 121 KNVKSLLKPPETNTPPEFFRIFNRSIDAFKDFVVASDTSDDLSTLSPKSGKAKSP 180
Qy 181 GDSSLHWAAMALPALFSLIIGFAFGALYWKQPSLTRAVENTIQNEEDNEISMLQEKER 240
Db 181 EDPGLQWAMALPALISLVIGFAFGALYWKQKQSLTRAVENTIQNEEDNEISMLQEKER 240
Qy 241 EFQEV 245
Db 241 EFQEV 245
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Qy 121 KDLKSKSPKPRFLTPPEEFRIENRSDAFKDF-VVASETSDCVSSTLSPEKG----- 174
Db 121 ENVKSSKSPPEPQPTPEKFGFNKSIDAFKDLIVASTVSECVISSTSPKDSRVSV 180
Qy 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWK 211
Db 181 TKPMLPVPVAASSLRNDSSSSNRKASNIEDSSQLQAAVALPAFFSLVIGFAFGALYWK 240
Qy 212 RQPSLTRAVENIQINEEDNEISMLQEKERFQEV 245
Db 241 KQPNLTRVNRQINEEDNEISMLQEKERFQEV 274

RESULT 8
SCF_BOVIN
ID - SCF_BOVIN STANDARD; PRT; 274 AA.
AC Q26132; Q9TU74;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast
DE cell growth factor) (MGF).
GN Name=KITLG; Synonyms=SCF;
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Bovinae; Bos.
OX NCBI TaxID=9913;
RN [1]_
RP NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
RC TISSUE=Spleen;
RX MEDLINE=9439176; PubMed=7520283; DOI=10.1016/0167-4889(94)90084-1;
RT Zhou J., Hikono H., Ohtaki M., Kubota T., Sakurai M.;
RT "Cloning and characterization of cDNAs encoding two normal isoforms of
RT bovine stem cell factor.";
RL Biochim. Biophys. Acta 1223:148-150(1994).
RN [2]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
RC TISSUE=Fetal brain;
RA Kudo T.;
RT "Bovine counterpart of stem cell factor.";
RL Submitted (OCT-1999) to the EMBL/GenBank/DBSJ databases.
RN [3]
RP NUCLEOTIDE SEQUENCE OF 204-239, AND VARIANT ASP-218.
RC STRAIN=Belgian Blue;
RX MEDLINE=9931531; PubMed=10384045; DOI=10.1007/s003359901076;
RA Seitz J.J., Schmutz S.M., Thue T.D., Buchanan F.C.;
RT "A missense mutation in the bovine MGF gene is associated with the
RT roan phenotype in Belgian Blue and Shorthorn cattle.";
RL Mamm. Genome 10:710-712(1999).
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins (By similarity).
CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (isoforms 1 and 2).
CC Also exists as a secreted soluble form (isoform 1 only) (By
CC similarity).
CC -!- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=1;
CC IsoId=Q26132-1; Sequence=Displayed;
CC Name=2;
CC IsoId=Q26132-2; Sequence=VSP 006020;
CC -!- PTM: A soluble form is produced by proteolytic processing of
CC isoform 1 in the extracellular domain (By similarity).
CC -!- POLYMORPHISM: The roan locus is responsible for the coat
CC coloration of Belgian Blue and Shorthorn cattle. The solid-colored
CC and white animals are homozygotes, and the roan animals, with
CC intermingled colored and white hairs, are heterozygous. The roan
CC phenotype is due to the Asp-218 mutation.

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CC -!- SIMILARITY: Belongs to the SCF family.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC
DR EMBL; D28934; BAA06061.1; -; mRNA.
DR EMBL; AB033716; BAA94808.1; -; mRNA.
DR EMBL; AF120154; AAD55355.1; -; Genomic_DNA.
DR PIR; S47571; S47571.
DR SMR; Q28132; 29-161.
DR InterPro; IPR012351; Cytokine_4_hlx.
DR InterPro; IPR003452; SCF.
DR PANTHER; PTHR11574; SCF; 1.
DR Pfam; PF02404; SCF; 1.
KW Alternative splicing; Cell adhesion; Glycoprotein; Growth factor;
KW Polymorphism; Signal; Transmembrane.
FT SIGNAL 1 25 Potential.
FT CHAIN 26 274 Kit ligand.
FT TOPO_DOM 216 215 Extracellular (Potential).
FT TRANSMEM 216 238 Potential.
FT TOPO_DOM 239 274 Cytoplasmic (Potential).
FT CARBOHYD 90 90 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 145 145 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 196 196 N-linked (GlcNAc...) (Potential).
FT DISULFID 29 114 By similarity.
FT DISULFID 68 164 By similarity.
FT VARSPPLIC 175 203 DSRVSVTKPFMLPFPVAASSLRNDSSSSNR -> G (in isoform 2).
FT VARIANT 218 218 A -> D (in roan allele).
FT SEQUENCE 274 AA; 31015 MW; D6C1DD877B0CB12B CRC64;
Query Match 80.7%; Score 1018.5; DB 1; Length 274;
Best Local Similarity 74.1%; Pred. No. 5.2e-72;
Matches 203; Conservative 20; Mismatches 22; Indels 29; Gaps 2;
Qy 1 MKKTQTWILTCTIYLQLLFNPLVKTGICRNRVTNNVVDVTKLVANLPKDMITLKYPVG 60
Db 1 MKKTQTWILTCTIYLQLLFNPLVKTGICRNRVTNNVVDVTKLVANLPKDMITLKYPVG 60
Qy 61 MDVLPSCWISSEMVVQLSDLTLLDKFNSISGLSNYSIIDKLVINIVDDLVCEVKENSS 120
Db 61 MDVLPSCWISSEMVVQLSDLTLLDKFNSISGLSNYSIIDKLVINIVDDLVCEVKENSS 120
Qy 121 KDLKSKSPKPRFLTPPEEFRIENRSDAFKDF-VVASETSDCVSSTLSPEKG----- 174
Db 121 ENVKSSKSPPEPQPTPEKFGFNKSIDAFKDLIVASTVSECVISSTSPKDSRVSV 180
Qy 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWK 211
Db 181 TKPMLPVPVAASSLRNDSSSSNRKASNIEDSSQLQAAVALPAFFSLVIGFAFGALYWK 240
Qy 212 RQPSLTRAVENIQINEEDNEISMLQEKERFQEV 245
Db 241 KQPNLTRVNRQINEEDNEISMLQEKERFQEV 274

RESULT 9
SCF_CANFA
ID - SCF_CANFA STANDARD; PRT; 274 AA.
AC Q06220; Q8SPM6;
DT 01-JUN-1994 (Rel. 29, Created)
DT 01-JUN-1994 (Rel. 29, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast
DE cell growth factor) (MGF).
GN Name=KITLG; Synonyms=MGF;
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;

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FT DISULFID 68 164 By similarity.
FT VARSPIC 175 203 DSRVSTKPFMLPPVAASSLRNDSSNR -> G (in
FT isoform 2).
FT /FTid=VSP_006024.
FT CONFLICT 65 65 S -> P (in Ref. 1; AAK73366).
FT CONFLICT 171 171 S -> N (in Ref. 1; AAK73366).
FT CONFLICT 268 274 EREFQEV -> RESFRCNCGFYHTVLSYLG (in Ref.
FT 1; AAK73366).
SQ SEQUENCE 274 AA; 31035 MW; 5AC1619014AE5E72 CRC64;

Query Match 80.4%; Score 1014.5; DB 1; Length 274;
Best Local Similarity 73.7%; Pred. No. 1.1e-71;
Matches 202; Conservative 20; Mismatches 23; Indels 29; Gaps 2;

QY 1 MKKTQTWLTCTIYLLQLLFNELVTEGICRRNVTNNVKDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTIYLLQLLFNELVTEGICRRNVTNNVKDVTKLVANLPKDYMITLKYVPG 60

QY 61 MDVLPCHWISWVQVLSLTDLLDKFSNISEGLSNYSIIDKLWIVDDLVKVCENSS 120
DB 61 MDVLSHCHWIRWVEQLSVSLTDLLDKFSNISEGLSNYSIIDKLWIVDDLVKVCENSS 120

QY 121 KDLKSKFSKSPRLFTPEEFRIFNRSIDAFKDF-VVASETSDCVSSTLSPEKG----- 174
DB 121 ENVKSPKPNPRHFAPEDFRIFNRSIDALKOLETVASKTSECVLPSTLSPEKDSRVSV 180

QY 175 -----KKNPPGSSSLHWAAMALPALPSLIIGFAPGALYWK 211
DB 181 TKPFMLPPVAASSLRNDSSNRKAANPLGNSLQWAAAMALPAFSLVIGFAPGALYWK 240

QY 212 RPSLTTRAVENITONEEDNEISMLQEKEREQEV 245
DB 241 KPNLTPRTAENIQNEEDNEISMLQEKEREQEV 274

RESULT 11
O68D22_HUMAN PRELIMINARY; PRT; 238 AA.
AC Q68D22;
DT 25-OCT-2004 (TRENBLrel. 28, Created)
DT 25-OCT-2004 (TRENBLrel. 28, Last sequence update)
DT 25-OCT-2004 (TRENBLrel. 28, Last annotation update)
DE Hypothetical protein DKFP686F2250.
GN Name=DKFP686F2250;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]_TaxID=9606;
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Amvgdala;
RG The German cDNA Consortium;
RA Ottenwaelder B., Obermaier B., Deutschenbaur S., Schallp A.,
RA Mewes H.W., Weil B., Amid C., Osanger A., Fobo G., Han M., Wiemann S.;
RL Submitted (AUG-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; CR749222; CAH18078.1; -; mRNA.
DR SMR; Q68D22; 9-126.
DR GO; GO:0016020; C:membrane; IEA.
DR GO; GO:0005173; F:stem cell factor receptor binding; IEA.
DR GO; GO:0007155; P:cell adhesion; IEA.
DR InterPro; IPR003452; SCF.
DR Pfam; PF02404; SCF; 1.
KW Hypothetical protein.
SQ SEQUENCE 238 AA; 26667 MW; 7D6B1E487BE3709B CRC64;
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Query Match 79.6%; Score 1005; DB 2; Length 238;
Best Local Similarity 87.4%; Pred. No. 5.1e-71;
Matches 201; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

QY 44 VANLPKDYMITLKYVPGMDVLPCHWISWVQVLSLTDLLDKFSNISEGLSNYSIIDK 103
DB 9 VANLPKDYMITLKYVPGMDVLPCHWISWVQVLSLTDLLDKFSNISEGLSNYSIIDK 68
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QY 104 LVNIVDDLVECVKENSCKLKSKFKSPRLFTPEEFRIFNRSIDAFKDFVASETSDC 163
DB 69 LVNIVDDLVECVKENSCKLKSKFKSPRLFTPEEFRIFNRSIDAFKDFVASETSDC 128

QY 164 VVSSTLSPEKG-----KKNPPGSSSLHWAAMALPAL 195
DB 129 VVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSNRKAANPLGNSLQWAAAMALPAL 188

QY 196 FSLIIGFAPGALYWKQPSLTTRAVENITONEEDNEISMLQEKEREQEV 245
DB 189 FSLIIGFAPGALYWKQPSLTTRAVENITONEEDNEISMLQEKEREQEV 238

RESULT 12
SCF RAT
ID - SCF RAT STANDARD; PRT; 273 AA.
AC P21581; Q9QWZ4; Q922E7;
DT 01-MAY-1991 (Rel. 18, Created)
DT 28-PEB-2003 (Rel. 41, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Kit ligand precursor (C-kit ligand) (Stem cell factor) (SCF) (Mast
DE cell growth factor) (MGF) (Hematopoietic growth factor KL).
GN Name=Kitlg; Synonyms=Mgf;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridea; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP NUCLEOTIDE SEQUENCE (ISOFORMS 1 AND 2).
RA Teramoto T., Nagashima M., Thorgeirsson S.S.;
RL Submitted (JUN-1998) to the EMBL/GenBank/DBJ databases.
RN [2]
RP NUCLEOTIDE SEQUENCE OF 1-201, AND PARTIAL PROTEIN SEQUENCE.
RA MEDLINE=91004219; PubMed=2208279; DOI=10.1016/0092-8674(90)90301-T;
RA Martin P.H., Suggs S.V., Langley K.E., Lu H.S., Ting J., Okino K.H.,
RA Morris C.P., McNiece I.K., Jacobsen F.W., Mendiaz E.A., Birkett N.C.,
RA Smith K.A., Johnson M.J., Parker V.P., Flores J.C., Patel A.C.,
RA Fisher E.F., Erjavec H.O., Herrera C.J., Wypych J., Sachdev R.K.,
RA Pope J.A., Leslie I., Wen D., Lin C.-H., Cupples R.L., Zeebo K.M.;
RA "Primary structure and functional expression of rat and human stem
RA cell factor DNAs.";
RL Cell 63:203-211(1990).
RN [3]
RP PROTEIN SEQUENCE OF 26-190, CARBOHYDRATE-LINKAGE SITES, AND DISULFIDE
RP BONDS.
RC STRAIN=Buffalo; TISSUE=Liver;
RA Lu H.S., Clogston C.L., Wypych J., Fausset P.R., Lauren S.,
RA Mendiaz E.A., Zeebo K.M., Langley K.E.;
RA "Amino acid sequence and post-translational modification of stem cell
RA factor isolated from buffalo rat liver cell-conditioned medium.";
RL J. Biol. Chem. 266:8102-8107(1991).
RN [4]
RP PROTEIN SEQUENCE OF 26-39.
RX MEDLINE=91004218; PubMed=2208278; DOI=10.1016/0092-8674(90)90300-4;
RA Zeebo K.M., Wypych J., McNiece I.K., Lu H.S., Smith K.A.,
RA Karkare S.B., Sachdev R.K., Yushchenkoff V.N., Birkett N.C.,
RA Williams L.R., Satyagal V.N., Tung W., Bosselman R.A., Mendiaz E.A.,
RA Langley K.E.;
RA "Identification, purification, and biological characterization of
RA hematopoietic stem cell factor from buffalo rat liver-conditioned
RA medium.";
RL Cell 63:195-201(1990).
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins.
CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (isoforms 1 and 2).
CC Also exists as a secreted soluble form (isoform 1 only) (By
```


RA Graw J., Neuhauser-Klaus A., Pretech W.;
RT "Detection of a point mutation (A to G) in exon 5 of the murine Mgf
RT gene defines a novel allele at the Steel locus with a weak
RT phenotype.";
RL Mutat. Res. 382:75-78 (1997).
RN [8]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1).
RC STRAIN=C57BL/6J; TISSUE=Cerebellum; DOI=10.1038/nature01266;
RX MEDLINE=22354683; PubMed=12466851;
RA Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kondo S.,
RA Nikaido I., Otsu N., Saito R., Suzuki H., Yamanaka I., Kiyosawa H.,
RA Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schonbach C., Gofobori T.,
RA Badarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,
RA Schriml L.M., Kanapin A., Matsuda H., Batalov S., Beisel K.W.,
RA Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S.,
RA Dalla E., Dragani T.A., Fletcher C.F., Forrest A., Frazer K.S.,
RA Gaasterland T., Gariboldi M., Gissi C., Godzik A., Gough J.,
RA Grimmond S., Gustincich S., Hirokawa N., Jackson I.J., Jarvis E.D.,
RA Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA Kanagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,
RA Maglott D.R., Maitais L., Marchionni L., McKenzie L., Miki H.,
RA Nagashima T., Numata K., Okido T., Pavan W.J., Perte G., Pesole G.,
RA Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA Ravasi T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M.,
RA Sandelin A., Schneider C., Semple C.A., Setou M., Shimada K.,
RA Sultana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M.,
RA Verardo R., Wagner L., Wahleschdt C., Wang Y., Watanabe Y., Wells C.,
RA Wilming L.G., Wynshaw-Boris A., Yanagisawa M., Yang I., Yang L.,
RA Yuan Z., Zavolan M., Zhu Y., Zimmer A., Carninci P., Hayatsu N.,
RA Hirozane-Kishikawa T., Konno H., Nakamura M., Sakazume N., Sato K.,
RA Shiraki T., Waki K., Kawai J., Aizawa K., Arakawa T., Fukuda S.,
RA Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I.,
RA Miyazaki A., Sakai K., Sasai K., Shibata K., Shinagawa A.,
RA Yasunishi A., Yoshino M., Waterston R., Lander E.S., Rogers J.,
RA Birney E., Hayashizaki Y.;
RT "Analysis of the mouse transcriptome based on functional annotation of
RT 60,770 full-length cDNAs";
RL Nature 420:563-573 (2002).
RN [9]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1), AND VARIANT
RP SER-207.
RX MEDLINE=23388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Ustin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaly S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalios D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
RN [10]
RP NUCLEOTIDE SEQUENCE OF 1-270 (ISOFORM 1), AND PROTEIN SEQUENCE OF
RP 26-65.
RX MEDLINE=91004221; PubMed=1698557; DOI=10.1016/0092-8674(90)90303-V;
RA Huang E., Nock K., Beier D.R., Chu T.Y., Buck J., Lahn H.W.,
RA Wellner D., Leder P., Besmer P.;
RT "The hematopoietic growth factor KL is encoded by the sl locus and is
RT the ligand of the c-kit receptor, the gene product of the w locus";
RL Cell 63:225-233 (1990).
RN [11]
RP NUCLEOTIDE SEQUENCE OF 1-201.

RX MEDLINE=91004220; PubMed=1698556; DOI=10.1016/0092-8674(90)90302-U;
RA Zsebo K.M., Williams D.A., Geissler E.N., Broudy V.C., Martin F.H.,
RA Atkins H.L., Hsu R.-Y., Birkett N.C., Okino K.H., Murdock D.C.,
RA Jacobsen F.W., Langley K.B., Smith K.A., Takeishi T., Cattane B.M.,
RA Galli S.J., Suggs S.V.;
RT "Stem cell factor is encoded at the sl locus of the mouse and is the
RT ligand for the c-kit tyrosine kinase receptor";
RL Cell 63:213-224 (1990).
RN [12]
RP PROTEIN SEQUENCE OF 26-53.
RX MEDLINE=91004216; PubMed=1698554; DOI=10.1016/0092-8674(90)90298-S;
RA Copeland N.G., Gilbert D.J., Cho B.C., Donovan P.J., Jenkins N.A.,
RA Cosman D., Anderson D., Lyman S.D., Williams D.E.;
RT "Mast cell growth factor maps near the steel locus on mouse chromosome
RT 10 and is deleted in a number of steel alleles";
RL Cell 63:175-183 (1990).
RN [13]
RP PARTIAL PROTEIN SEQUENCE OF 26-78.
RX MEDLINE=91004215; PubMed=1698553; DOI=10.1016/0092-8674(90)90297-R;
RA Williams D.E., Eisenman J., Baird A., Rauch C., van Ness K.,
RA March C.J., Park L.S., Martin U., Mochizuki D.Y., Boswell H.S.,
RA Burgess G.S., Cosman D., Lyman S.D.;
RT "Identification of a ligand for the c-kit proto-oncogene";
RL Cell 63:167-174 (1990).
CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
CC augment the proliferation of both myeloid and lymphoid
CC hematopoietic progenitors in bone marrow culture. Mediates also
CC cell-cell adhesion. Acts synergistically with other cytokines,
CC probably interleukins.
CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (isoforms 1 and 2).
CC Also exists as a secreted soluble form (isoform 1 only) (By
CC similarity).
CC -!- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=1; Synonyms=KL-1;
CC IsoId=P20826-1; Sequence=Displayed;
CC Name=2; Synonyms=KL-2;
CC IsoId=P20826-2; Sequence=VSP_006023;
CC -!- DEVELOPMENTAL STAGE: Acts in the early stages of hematopoiesis.
CC -!- PTM: A soluble form is produced by proteolytic processing of
CC isoform 1 in the extracellular domain.
CC -!- SIMILARITY: Belongs to the SCF family.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL Outstation
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; M59915; AAA40095.1; -; mRNA.
DR EMBL; M57647; AAA39538.1; -; mRNA.
DR EMBL; S40534; AAB22555.2; -; mRNA.
DR EMBL; X68989; CAA48778.1; -; mRNA.
DR EMBL; U44724; -; NOT ANNOTATED CDS; Genomic_DNA.
DR EMBL; U44725; AAC52447.1; -; mRNA.
DR EMBL; X95381; CAA64667.1; -; mRNA.
DR EMBL; X99322; CAA67698.1; -; mRNA.
DR EMBL; Y10287; CAA71329.1; -; mRNA.
Query Match 78.5%; Score 991; DB 1; Length 273;
Best Local Similarity 72.2%; Pred. No. 7,6e-70;
Matches 197; Conservative 19; Mismatches 29; Indels 28; Gaps 1;
QY 1 MKKTQTWLTCTIYLQLLFNLPLVKTGICRNRVTNNVNDVKLVANLPKQWMTLKYPVG 60
Db 1 MKKTQTWLTCTIYLQLLFNLPLVKTGICRNRVTNNVNDVKLVANLPKQWMTLKYPVG 60
QY 61 MDVLPSHCWISGVVQLSDSLTDLDDKFSNISEGLSNYSIIIDKLNVIVDDIVCEVCNKS 120
Db 61 MDVLPSHCWISGVVQLSDSLTDLDDKFSNISEGLSNYSIIIDKLNVIVDDIVCEVCNAP 120
QY 121 KDLKKSFKSPBRLFTPEFFRIFNRSIDAFKDFVASETSDCVVSTLSPEKG----- 174

Db 121 KNKESPKRPTSPTEFFSIFNRSIDAFKDFWASDTSVCVLSSTLGPBKDSRVSVT 180
 QY 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKVKR 212
 Db 181 KPFMLPPVAASSLRNDSSSNRKAAPKPEDSGLOWTALPALISLVIGFAFGALYWKVK 240
 QY 213 QSLTRAVENIQINEDNEISMLOKEREFOV 245
 Db 241 QSSLTRAVENIQINEDNEISMLOKEREFOV 273

RESULT 14

SCF_SHEEP STANDARD; PRT; 267 AA.
 AC P79368; Q28591;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Kit ligand precursor (C-kit ligand) (stem cell factor) (SCF) (Mast
 cell growth factor) (MGF) (Fragment).
 GN Name=KITLG; Synonyms=SCF;
 OS Ovis aries (Sheep).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 OC Pecora; Bovidae; Caprinae; Ovis.
 OX NCBI_TaxID=9940;
 RN [1]
 RP NUCLEOTIDE SEQUENCE OF 8-267.
 RC TISSUE=Ovarian follicle;
 RA MEDLINE=96413880; PubMed=8662240; DOI=10.1007/s003359900142;
 RX Tisdall D.J., Quirke L.D., Galloway S.M.;
 RT "Ovine stem cell factor gene is located within a syntenic group on
 chromosome 3 conserved across mammalian species.";
 RL Mamm. Genome 7:472-473 (1996).
 RN [2]

RP NUCLEOTIDE SEQUENCE OF 1-202.
 RX MEDLINE=9263397; PubMed=10328863; DOI=10.1006/cyto.1998.0430;
 RA McInnes C.J., Deane D., Thomson J., Broad A., Haig D.M.;
 RT "The cloning and expression of the cDNA for ovine stem cell factor
 (kit-ligand) and characterization of its in vitro haematopoietic
 activity.";
 RL Cytokine 11:249-256(1999).
 RC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
 augment the proliferation of both myeloid and lymphoid
 hematopoietic progenitors in bone marrow culture. Mediates also
 cell-cell adhesion. Acts synergistically with other cytokines,
 probably interleukins (By similarity).
 CC -!- SUBUNIT: Homodimer, non-covalently linked (Probable).
 CC -!- SUBCELLULAR LOCATION: Type I membrane protein. Also exists as a
 secreted soluble form (By similarity).
 CC -!- PTM: A soluble form is produced by proteolytic processing of the
 extracellular domain (By similarity).
 CC -!- SIMILARITY: Belongs to the SCF family.
 CC -----
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 between the Swiss Institute of Bioinformatics and the EMBL outstation -
 the European Bioinformatics Institute. There are no restrictions on its
 use as long as its content is in no way modified and this statement is not
 removed.

DR EMBL; U89874; AAB49491.1; -; mRNA.
 DR EMBL; Z50743; CAA90620.1; -; mRNA.
 DR PIR; S58313; S58313.
 DR SMR; P79368; 29-161.
 DR InterPro; IPR012351; Cytokine_4_hlx.
 DR InterPro; IPR003452; SCF.
 DR PANTHER; PTHR11574; SCF; 1.
 DR Pfam; PF02404; SCF; 1.
 KW Cell adhesion; Glycoprotein; Growth factor; Signal; Transmembrane.
 FT SIGNAL 1 25
 FT CHAIN 26 >267
 FT TOPO_DOM 26 215
 FT Extracellular (Potential).

FT TRANSMEM 216 238
 FT TOPO_DOM 239 >267
 FT CARBOHYD 90 90
 FT CARBOHYD 97 97
 FT CARBOHYD 145 145
 FT CARBOHYD 196 196
 FT DISULFID 29 114
 FT DISULFID 68 164
 FT NON_TER 267
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 Query Match 78.5%; Score 990.5; DB 1; Length 267;
 Best Local Similarity 74.2%; Pred. No. 8.2e-70;
 Matches 198; Conservative 19; Mismatches 21; Indels 29; Gaps 2;
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 Db 1 MKKTQTWLTCTIYLQLLFLNPLVHTQICRRNVTDDVTKLVANLPKDYMITLKYVPG 60
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 QY 121 KDLKSPKSPERLFTPEEPFRINRSIDAKDF-VVASETSDCVVSTLSPEKG----- 174
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 Db 241 KQPNLTRVTENRQINEDNEISMLOK 267

RESULT 15

ID Q864L9 MACMU PRELIMINARY; PRT; 164 AA.
 AC Q864L9;
 DT 01-JUN-2003 (TrEMBLrel. 24, Created)
 DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
 DE SCF (Fragment).
 OS Macaca mulatta (Rhesus macaque).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
 OC Cercopitheidae; Cercopitheciinae; Macaca.
 OX NCBI_TaxID=9544;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA TISSUE=Liver;
 RA Gregoire A., Dorckel E., Morre M.;
 RL Submitted (MAR-2003) to the EMBL/GenBank/DBJ databases.
 CC -!- FUNCTION: Stimulates the proliferation of mast cells. Able to
 augment the proliferation of both myeloid and lymphoid
 hematopoietic progenitors in bone marrow culture. Mediates also
 cell-cell adhesion. Acts synergistically with other cytokines,
 probably interleukins (By similarity).
 CC -!- SUBUNIT: Homodimer, non-covalently linked (By similarity).
 CC -!- SUBCELLULAR LOCATION: Type I membrane protein (isoforms 1 and 2).
 CC Also exists as a secreted soluble form (isoform 1 only) (By
 similarity).
 CC EMBL; AY247403; AAP03067.1; -; mRNA.
 DR HSP; P21583; 1SCF.
 DR SMR; Q864L9; 4-136.
 DR GO; GO:0016020; C:membrane; IEA.
 DR GO; GO:0005173; F:stem cell factor receptor binding; IEA.
 DR GO; GO:0007155; P:cell adhesion; IEA.
 DR InterPro; IPR003452; SCF.
 DR Pfam; PF02404; SCF; 1.
 KW Cell adhesion; Transmembrane.
 FT NON_TER 1 1

GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: February 22, 2006, 18:19:42 ; Search time 29.697 Seconds
(without alignments)
682.074 Million cell updates/sec

Title: US-10-620-642-63
Perfect score: 1262
Sequence: 1 MKKTQTWILTCIYQLLLFN.....NEEDNEISMLQEKREBQEV 245

Scoring table:
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents_AA:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1262	100.0	245	US-08-482-918-63	Sequence 63, Appl
2	1262	100.0	245	US-09-224-681-63	Sequence 63, Appl
3	1262	100.0	245	US-08-336-728A-63	Sequence 63, Appl
4	1262	100.0	245	US-09-635-251-63	Sequence 63, Appl
5	1262	100.0	245	US-09-224-681-63	Sequence 63, Appl
6	1262	100.0	245	US-09-604-325A-63	Sequence 63, Appl
7	1262	100.0	262	US-09-949-016-9391	Sequence 9391, Ap
8	1262	100.0	262	US-09-949-016-9392	Sequence 9392, Ap
9	1231	97.5	273	US-08-220-379B-2	Sequence 2, Appl
10	1231	97.5	273	US-08-628-428-9	Sequence 9, Appl
11	1231	97.5	273	US-08-482-918-49	Sequence 49, Appl
12	1231	97.5	273	US-08-482-918-61	Sequence 61, Appl
13	1231	97.5	273	US-09-224-681-49	Sequence 49, Appl
14	1231	97.5	273	US-09-224-681-61	Sequence 61, Appl
15	1231	97.5	273	US-08-336-728A-48	Sequence 48, Appl
16	1231	97.5	273	US-08-336-728A-49	Sequence 49, Appl
17	1231	97.5	273	US-08-336-728A-61	Sequence 61, Appl
18	1231	97.5	273	US-09-635-251-49	Sequence 49, Appl
19	1231	97.5	273	US-09-635-251-61	Sequence 61, Appl
20	1231	97.5	273	US-09-224-683-49	Sequence 49, Appl
21	1231	97.5	273	US-09-224-683-61	Sequence 61, Appl
22	1231	97.5	273	US-09-604-325A-49	Sequence 49, Appl
23	1231	97.5	273	US-09-604-325A-61	Sequence 61, Appl
24	1231	97.5	290	US-09-949-016-9393	Sequence 9393, Ap
25	1231	97.5	290	US-09-949-016-9394	Sequence 9394, Ap
26	1226	97.1	273	US-08-482-918-48	Sequence 48, Appl
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28	1226	97.1	273	2	US-09-635-251-48	Sequence 48, Appl
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32	1215	96.3	273	2	US-09-224-681-50	Sequence 50, Appl
33	1215	96.3	273	2	US-09-635-251-50	Sequence 50, Appl
34	1215	96.3	273	2	US-09-224-683-50	Sequence 50, Appl
35	1215	96.3	273	2	US-09-604-325A-50	Sequence 50, Appl
36	1212	96.0	273	2	US-08-336-728A-50	Sequence 50, Appl
37	1099	87.1	248	1	US-08-955-848A-82	Sequence 82, Appl
38	1070.5	84.8	266	2	US-08-482-918-57	Sequence 57, Appl
39	1070.5	84.8	266	2	US-09-224-681-57	Sequence 57, Appl
40	1070.5	84.8	266	2	US-08-336-728A-57	Sequence 57, Appl
41	1070.5	84.8	266	2	US-09-635-251-57	Sequence 57, Appl
42	1070.5	84.8	266	2	US-09-224-683-57	Sequence 57, Appl
43	1070.5	84.8	266	2	US-09-604-325A-57	Sequence 57, Appl
44	1051.5	83.3	254	2	US-09-485-639D-9	Sequence 9, Appl
45	1051.5	83.3	254	2	US-09-133-352B-9	Sequence 9, Appl

ALIGNMENTS

RESULT 1
US-08-482-918-63
; Sequence 63, Application US/08482918
; Patent No. 6207417
; GENERAL INFORMATION:
; APPLICANT: Zsebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Sugge, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA: US/08/482,918
; APPLICATION NUMBER: US/08/482,918
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/33005
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 63:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 245 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-482-918-63

Query Match 100.0%; Score 1262; DB 2; Length 245;
Best Local Similarity 100.0%; Pred. No. 3.3e-125;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMTILKYVPG 60
Db 1 MKKTQTWILTCIYQLLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMTILKYVPG 60

QY 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLNVIVDDLVKCKENSS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLNVIVDDLVKCKENSS 120
QY 121 KDLKKSFKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKGGKAKNPP 180
DB 121 KDLKKSFKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKGGKAKNPP 180
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DB 181 GDSSLHWAAMALPALFSLIIIGFAGALYWKQRQPSLTRAVENTIQINEEDNEISMLQEKER 240
QY 241 EFQEV 245
DB 241 EFQEV 245

RESULT 2
US-09-224-681-63
; Sequence 63, Application US/09224681
; Patent No. 6207454
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Method for Enhancing the Efficiency of Gene
; TRANSFER WITH STEM CELL FACTOR (SCF) POLYPEPTIDE
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,681
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199

; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX:
; INFORMATION FOR SEQ ID NO: 63:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 245 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-224-681-63

Query Match 100.0%; Score 1262; DB 2; Length 245;
Best Local Similarity 100.0%; Pred. No. 3.3e-125;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 MKKTQTWILTCIYLQLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLNVIVDDLVKCKENSS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLNVIVDDLVKCKENSS 120
QY 121 KDLKKSFKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKGGKAKNPP 180
DB 121 KDLKKSFKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKGGKAKNPP 180
QY 181 GDSSLHWAAMALPALFSLIIIGFAGALYWKQRQPSLTRAVENTIQINEEDNEISMLQEKER 240
DB 181 GDSSLHWAAMALPALFSLIIIGFAGALYWKQRQPSLTRAVENTIQINEEDNEISMLQEKER 240
QY 241 EFQEV 245
DB 241 EFQEV 245

RESULT 3
US-08-336-728A-63
; Sequence 63, Application US/08336728A
; Patent No. 6207802
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/336,728A
; FILING DATE: 09-NOV-1994
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990

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; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/32956
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 63:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 245 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-336-728A-63

Query Match 100.0%; Score 1262; DB 2; Length 245;
Best Local Similarity 100.0%; Pred. No. 3.3e-125;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQALLFNPVKTEGICRRNVTNNVNDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTIYLQALLFNPVKTEGICRRNVTNNVNDVTKLVANLPKDYMITLKYVPG 60
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DB 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
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DB 121 KDLKSKFSKPEPRLTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKGAKNPP 180
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DB 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENTIQTNEEDNEISMLQEKER 240
QY 241 EFQEV 245
DB 241 EFQEV 245

RESULT 4
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; Sequence 63, Application US/09635251
; Patent No. 6759215
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/635,251
; FILING DATE: 07-Aug-2000
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; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,182
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 04-OCT-1991
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/32957A
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 63:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 245 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 63:
US-09-635-251-63

Query Match 100.0%; Score 1262; DB 2; Length 245;
Best Local Similarity 100.0%; Pred. No. 3.3e-125;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQALLFNPVKTEGICRRNVTNNVNDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTIYLQALLFNPVKTEGICRRNVTNNVNDVTKLVANLPKDYMITLKYVPG 60
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DB 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNISEGLSNYSIIDKLVNIIVDDLVECVKENS 120
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DB 121 KDLKSKFSKPEPRLTPEEPFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKGAKNPP 180
QY 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENTIQTNEEDNEISMLQEKER 240
DB 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENTIQTNEEDNEISMLQEKER 240
QY 241 EFQEV 245
DB 241 EFQEV 245

RESULT 5
US-09-224-683-63
; Sequence 63, Application US/09224683
; Patent No. 6841147
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
```

STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/224,683
FILING DATE:
CLASSIFICATION:
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: 09/005,893
FILING DATE: 12-JAN-1998
CLASSIFICATION:
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: 08/449,653
FILING DATE: 24-MAY-1995
CLASSIFICATION:
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
CLASSIFICATION:
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/35136
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 63:
SEQUENCE CHARACTERISTICS:
LENGTH: 245 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-224-683-63

Query Match 100.0%; Score 1262; DB 2; Length 245;
Best Local Similarity 100.0%; Pred. No. 3.3e-125;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTYQLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTYQLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNI SEGLSNYSIIDKLVNIYDDLVCECKENSS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNI SEGLSNYSIIDKLVNIYDDLVCECKENSS 120
QY 121 KDLKSKFSKSPRLFTPEEPFRINRSIDAFKDFVASETSDCVVSSSTLSPEKGAKNPP 180
DB 121 KDLKSKFSKSPRLFTPEEPFRINRSIDAFKDFVASETSDCVVSSSTLSPEKGAKNPP 180
QY 181 GDSLSHWAAMALPALFSLIIGFAGALYWKRRQPSLTRAVENTI QINEEDNEISMLQEKER 240
DB 181 GDSLSHWAAMALPALFSLIIGFAGALYWKRRQPSLTRAVENTI QINEEDNEISMLQEKER 240

QY 241 EFQEV 245
DB 241 EFQEV 245
RESULT 6
US-09-604-325A-63
Sequence 63, Application US/09604325A
Patent No. 6852313
GENERAL INFORMATION:
APPLICANT: Zsebo, Krisztina M.
Bosselman, Robert A.
Suggs, Sidney V.
Martin, Francis H.
TITLE OF INVENTION: Stem Cell Factor
NUMBER OF SEQUENCES: 104
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/604,325A
FILING DATE: 17-Jun-2002
CLASSIFICATION: <unknown>
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/32953
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 63:
SEQUENCE CHARACTERISTICS:
LENGTH: 245 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 63:
US-09-604-325A-63

Query Match 100.0%; Score 1262; DB 2; Length 245;
Best Local Similarity 100.0%; Pred. No. 3.3e-125;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKTQTWLTCTYQLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTQTWLTCTYQLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNI SEGLSNYSIIDKLVNIYDDLVCECKENSS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLDFKFSNI SEGLSNYSIIDKLVNIYDDLVCECKENSS 120
QY 121 KDLKSKFSKSPRLFTPEEPFRINRSIDAFKDFVASETSDCVVSSSTLSPEKGAKNPP 180

```

Db 121 KDLKSKSPKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKGAKNPP 180
Qy 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENTIQTNEEDNEISMLOEKER 240
Db 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENTIQTNEEDNEISMLOEKER 240
Qy 241 EFQEV 245
Db 241 EFQEV 245

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RESULT 7
US-09-949-016-9391
; Sequence 9391, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; FILE REFERENCE: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 9391
; LENGTH: 262
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-9391

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Query Match 100.0%; Score 1262; DB 2; Length 262;
Best Local Similarity 100.0%; Pred. No. 3.7e-125;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTIYQLQLLFNPLVKTGICRRNRVTNNVDVTKLVANLPKDYMITLKYPG 60
Db 18 MKKTQTWLTCTIYQLQLLFNPLVKTGICRRNRVTNNVDVTKLVANLPKDYMITLKYPG 77
Qy 61 MDVLPCHWISWVQVSDSLTDLKFSNISEGLSNYSIIDKLVNIVDDLVKCKENSS 120
Db 78 MDVLPCHWISWVQVSDSLTDLKFSNISEGLSNYSIIDKLVNIVDDLVKCKENSS 137
Qy 121 KDLKSKSPKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKGAKNPP 180
Db 138 KDLKSKSPKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKGAKNPP 197
Qy 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENTIQTNEEDNEISMLOEKER 240
Db 198 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENTIQTNEEDNEISMLOEKER 257
Qy 241 EFQEV 245
Db 258 EFQEV 262

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RESULT 8
US-09-949-016-9392
; Sequence 9392, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; FILE REFERENCE: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14

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; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 9392
; LENGTH: 262
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-9392

Query Match 100.0%; Score 1262; DB 2; Length 262;
Best Local Similarity 100.0%; Pred. No. 3.7e-125;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTIYQLQLLFNPLVKTGICRRNRVTNNVDVTKLVANLPKDYMITLKYPG 60
Db 18 MKKTQTWLTCTIYQLQLLFNPLVKTGICRRNRVTNNVDVTKLVANLPKDYMITLKYPG 77
Qy 61 MDVLPCHWISWVQVSDSLTDLKFSNISEGLSNYSIIDKLVNIVDDLVKCKENSS 120
Db 78 MDVLPCHWISWVQVSDSLTDLKFSNISEGLSNYSIIDKLVNIVDDLVKCKENSS 137
Qy 121 KDLKSKSPKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKGAKNPP 180
Db 138 KDLKSKSPKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKGAKNPP 197
Qy 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENTIQTNEEDNEISMLOEKER 240
Db 198 GDSSLHWAAMALPALFSLIIGFAGALYWKQRQPSLTRAVENTIQTNEEDNEISMLOEKER 257
Qy 241 EFQEV 245
Db 258 EFQEV 262

RESULT 9
US-08-220-379B-2
; Sequence 2, Application US/08220379B
; Patent No. 5525708
; GENERAL INFORMATION:
; APPLICANT: No. 5525708ka, Karl
; APPLICANT: Lobell, Robert B
; TITLE OF INVENTION: STABILIZED DIMER OF KIT LIGAND
; NUMBER OF SEQUENCES: 7
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Neave
; STREET: 1251 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: United States of America
; ZIP: 10020
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/220,379B
; FILING DATE: 28-MAR-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Haley Jr, James F
; REGISTRATION NUMBER: 27,794
; REFERENCE/DOCKET NUMBER: CytoMed/2
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 212-596-9000
; TELEFAX: 212-596-9090
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:

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;
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: cleavage site
; LOCATION: 164..165
US-08-220-379B-2

Query Match 97.5%; Score 1231; DB 1; Length 273;
Best Local Similarity 89.4%; Pred. No. 7.5e-122;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

QY 1 MKKTQTWLTCTIYQLLLFNPVLVTEGICRRNRTNNVKDVKLVANLPKDYMITLKYYPG 60
DB 1 MKKTQTWLTCTIYQLLLFNPVLVTEGICRRNRTNNVKDVKLVANLPKDYMITLKYYPG 60

QY 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISSEGLSNYSIIDKLVNI VDDLVKVCNKSS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISSEGLSNYSIIDKLVNI VDDLVKVCNKSS 120

QY 121 KDLKSKFSKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSTLSPEKSG----- 174
DB 121 KDLKSKFSKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSTLSPEKSG----- 180

QY 175 -----KAKNPGRDSSLHWAAMALPALFSLIIGFAGALYWKRR 212
DB 181 KPFMLPPVAASLRNDSSSRKAKNPGRDSSLHWAAMALPALFSLIIGFAGALYWKRR 240

QY 213 QPSLTRAVENTIQTNEEDNEISMLQEKEREFOEV 245
DB 241 QPSLTRAVENTIQTNEEDNEISMLQEKEREFOEV 273

RESULT 10
US-08-628-428-9
; Sequence 9, Application US/08628428
; Patent No. 5885962
; GENERAL INFORMATION:
; APPLICANT: Lu, Hsieng
; TITLE OF INVENTION: SCF ANALOG COMPOSITIONS AND METHODS
; NUMBER OF SEQUENCES: 9
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Amgen Inc.
; STREET: 1840 DeHavilland Drive
; CITY: Thousand Oaks
; STATE: CA
; COUNTRY: USA
; ZIP: 91320-1789
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/628,428
; FILING DATE: 05-APR-1996
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Knight, Matthew W
; REGISTRATION NUMBER: 36,846
; REFERENCE/DOCKET NUMBER: A-400
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Protein
; LOCATION: 1..273
; OTHER INFORMATION: /note= "NOTE: Mature full length

;
; OTHER INFORMATION: 1-248 SCF protein begins at amino acid 26; amino acid 1-25
; OTHER INFORMATION: include Met and leader sequences for membrane band form of hu
; OTHER INFORMATION: recombinant SCF."
US-08-628-428-9

Query Match 97.5%; Score 1231; DB 1; Length 273;
Best Local Similarity 89.4%; Pred. No. 7.5e-122;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

QY 1 MKKTQTWLTCTIYQLLLFNPVLVTEGICRRNRTNNVKDVKLVANLPKDYMITLKYYPG 60
DB 1 MKKTQTWLTCTIYQLLLFNPVLVTEGICRRNRTNNVKDVKLVANLPKDYMITLKYYPG 60

QY 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISSEGLSNYSIIDKLVNI VDDLVKVCNKSS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISSEGLSNYSIIDKLVNI VDDLVKVCNKSS 120

QY 121 KDLKSKFSKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSTLSPEKSG----- 174
DB 121 KDLKSKFSKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSTLSPEKSG----- 180

QY 175 -----KAKNPGRDSSLHWAAMALPALFSLIIGFAGALYWKRR 212
DB 181 KPFMLPPVAASLRNDSSSRKAKNPGRDSSLHWAAMALPALFSLIIGFAGALYWKRR 240

QY 213 QPSLTRAVENTIQTNEEDNEISMLQEKEREFOEV 245
DB 241 QPSLTRAVENTIQTNEEDNEISMLQEKEREFOEV 273

RESULT 11
US-08-482-918-49
; Sequence 49, Application US/08482918
; Patent No. 6207417
; GENERAL INFORMATION:
; APPLICANT: Zsebo, Krisztina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/482,918
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/33005
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-482-918-49

Query Match 97.5%; Score 1231; DB 2; Length 273;
Best Local Similarity 89.4%; Pred. No. 7.5e-122;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

QY 1 MKKTOTWILTCIYLOLLFNPVLKTEGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTOTWILTCIYLOLLFNPVLKTEGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPFHCWISWMVQVSDSLTDLKDFSNISSEGLSNYSIIDKLVNIVDDLVCEVCNKSS 120
DB 61 MDVLPFHCWISWMVQVSDSLTDLKDFSNISSEGLSNYSIIDKLVNIVDDLVCEVCNKSS 120

QY 121 KDLKSFSPKSPRLPTPEFFRIFNRSIDAFKDFVVASETSCVVSSTLSPEK----- 174
DB 121 KDLKSFSPKSPRLPTPEFFRIFNRSIDAFKDFVVASETSCVVSSTLSPEKSRVSVT 180

QY 175 -----KKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 212
DB 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240

QY 213 QPSLTRAVENTIQUINEDNEISMLOKEREFOEV 245
DB 241 QPSLTRAVENTIQUINEDNEISMLOKEREFOEV 273

RESULT 12
US-08-482-918-61
; Sequence 61, Application US/08482918
; Patent No. 6207417
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION NUMBER: US/08/482.918
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/33005
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0446
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-482-918-61

Query Match 97.5%; Score 1231; DB 2; Length 273;
Best Local Similarity 89.4%; Pred. No. 7.5e-122;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

QY 1 MKKTOTWILTCIYLOLLFNPVLKTEGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTOTWILTCIYLOLLFNPVLKTEGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60

QY 61 MDVLPFHCWISWMVQVSDSLTDLKDFSNISSEGLSNYSIIDKLVNIVDDLVCEVCNKSS 120
DB 61 MDVLPFHCWISWMVQVSDSLTDLKDFSNISSEGLSNYSIIDKLVNIVDDLVCEVCNKSS 120

QY 121 KDLKSFSPKSPRLPTPEFFRIFNRSIDAFKDFVVASETSCVVSSTLSPEK----- 174
DB 121 KDLKSFSPKSPRLPTPEFFRIFNRSIDAFKDFVVASETSCVVSSTLSPEKSRVSVT 180

QY 175 -----KKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 212
DB 181 KPFMLPPVAASLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240

QY 213 QPSLTRAVENTIQUINEDNEISMLOKEREFOEV 245
DB 241 QPSLTRAVENTIQUINEDNEISMLOKEREFOEV 273

RESULT 13
US-09-224-681-49
; Sequence 49, Application US/09224681
; Patent No. 6207454
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Method for Enhancing the Efficiency of Gene
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,681
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:

```
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX:
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-224-681-49

Query Match          97.5%; Score 1231; DB 2; Length 273;
Best Local Similarity 89.4%; Pred. No. 7,5e-122;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVNDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVNDVTKLVANLPKDYMITLKYPVG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIIVDDLVKCNKSS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIIVDDLVKCNKSS 120
QY 121 KDLKSFKSPPELFTPEEPFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKG----- 174
DB 121 KDLKSFKSPPELFTPEEPFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180
QY 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAGFALYWKRR 212
DB 181 KPFMLPPVAASSLRNDSNSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGFALYWKRR 240
QY 213 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 245
DB 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273

RESULT 14
US-09-224-681-61
; Sequence 61, Application US/09224681
; Patent No. 6207454
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Method for Enhancing the Efficiency of Gene
; TITLE OF INVENTION: Transfer with Stem Cell Factor (SCF) Polypeptide
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,681
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
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; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX:
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-224-681-61

Query Match          97.5%; Score 1231; DB 2; Length 273;
Best Local Similarity 89.4%; Pred. No. 7,5e-122;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

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DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVNDVTKLVANLPKDYMITLKYPVG 60
QY 61 MDVLPSCWISSEMVVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIIVDDLVKCNKSS 120
DB 61 MDVLPSCWISSEMVVQLSDSLTDLKDFSNISEGLSNYSIIDKLVNIIVDDLVKCNKSS 120
QY 121 KDLKSFKSPPELFTPEEPFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKG----- 174
DB 121 KDLKSFKSPPELFTPEEPFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180
QY 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAGFALYWKRR 212
DB 181 KPFMLPPVAASSLRNDSNSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGFALYWKRR 240
QY 213 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 245
DB 241 QPSLTRAVENTQINEEDNEISMLOKEREFOEV 273

RESULT 15
US-08-336-728A-48
; Sequence 48, Application US/08336728A
; Patent No. 6207802
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
```


STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/336,728A
FILING DATE: 09-NOV-1994
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/32956
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 48:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-336-728A-48

Query Match 97.5%; Score 1231; DB 2; Length 273;
Best Local Similarity 89.4%; Pred. No. 7.5e-122; Mismatches 1; Indels 28; Gaps 1;
Matches 244; Conservative 0;

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Db	1	MKKTQTWILTCIYLQLLFNPLVKTEGICRNRVTNNVKDVTKLVANLPKDYMITLKYYPG	60
Qy	61	MDVLPSCWISVMVQLSDSLTDLLDKPSNISEGLSNYSIIDKLVINIVDDLVECVKENS	120
Db	61	MDVLPSCWISVMVQLSDSLTDLLDKPSNISEGLSNYSIIDKLVINIVDDLVECVKENS	120
Qy	121	KOLKSKSPKSPRLTPTPEFFRIFNRSIDAFKDFVASETSDCVVSTLSPEKG-----	174
Db	121	KOLKSKSPKSPRLTPTPEFFRIFNRSIDAFKDFVASETSDCVVSTLSPEKSRVSVT	180
Qy	175	-----KAKNPPGDSLSLHWAAMALPALFSLIIIGFAPGALYWKR	212
Db	181	KPFMLPPVAASLRNDSSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIIGFAPGALYWKR	240
Qy	213	QPSLTRAVENTIINEEDNEISMLOKEREFOEV	245
Db	241	QPSLTRAVENTIINEEDNEISMLOKEREFOEV	273

Search completed: February 22, 2006, 18:21:59
Job time : 29.697 secs

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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 22, 2006, 18:20:42 ; Search time 97.865 Seconds
(without alignments)
1046.014 Million cell updates/sec

Title: US-10-620-642-63

Perfect score: 1262

Sequence: 1 MKKTQTWLTCTIYLQLLFN.....NEEDNEISMLQEKREPEQEV 245

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications_AA_Main:
1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep.*
3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
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5: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep.*
6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1262	100.0	245	3	US-09-005-243-63
2	1262	100.0	245	3	US-09-224-683-63
3	1262	100.0	245	4	US-10-175-608-63
4	1262	100.0	245	5	US-10-688-845-87
5	1262	100.0	245	5	US-10-620-642-63
6	1231	97.5	273	3	US-09-005-243-49
7	1231	97.5	273	3	US-09-005-243-61
8	1231	97.5	273	3	US-09-224-683-49
9	1231	97.5	273	3	US-09-224-683-61
10	1231	97.5	273	4	US-10-175-608-49
11	1231	97.5	273	4	US-10-175-608-61
12	1231	97.5	273	5	US-10-620-642-49
13	1231	97.5	273	5	US-10-620-642-61
14	1226	97.1	273	3	US-09-005-243-48
15	1226	97.1	273	3	US-09-224-683-48
16	1226	97.1	273	4	US-10-175-608-48
17	1226	97.1	273	5	US-10-620-642-48
18	1215	96.3	273	3	US-09-005-243-50
19	1215	96.3	273	3	US-09-224-683-50
20	1215	96.3	273	4	US-10-175-608-50
21	1215	96.3	273	5	US-10-620-642-50
22	1070.5	84.8	266	3	US-09-005-243-57
23	1070.5	84.8	266	3	US-09-224-683-57
24	1070.5	84.8	266	4	US-10-175-608-57
25	1070.5	84.8	266	5	US-10-620-642-57
26	1020.5	80.9	271	3	US-09-005-243-52
27	1020.5	80.9	271	3	US-09-224-683-52

28 1020.5 80.9 271 4 US-10-175-608-52
29 1020.5 80.9 271 5 US-10-620-642-52
30 1014.5 80.4 274 3 US-09-005-243-51
31 1014.5 80.4 274 3 US-09-224-683-51
32 1014.5 80.4 274 4 US-10-175-608-51
33 1014.5 80.4 274 5 US-10-620-642-51
34 1007 79.8 273 3 US-09-005-243-53
35 1007 79.8 273 3 US-09-224-683-53
36 1007 79.8 273 4 US-10-175-608-53
37 1007 79.8 273 5 US-10-620-642-53
38 992 78.6 273 3 US-09-005-243-42
39 992 78.6 273 3 US-09-224-683-42
40 992 78.6 273 4 US-10-175-608-42
41 992 78.6 273 5 US-10-620-642-42
42 991 78.5 273 3 US-09-005-243-55
43 991 78.5 273 3 US-09-224-683-55
44 991 78.5 273 4 US-10-132-345-4
45 991 78.5 273 4 US-10-175-608-55

ALIGNMENTS

RESULT 1
US-09-005-243-63
; Sequence 63, Application US/09005243
; Patent No. US20020018763A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosseiman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA: US/09/005,243
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/34465

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; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 63:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 245 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-005-243-63

Query Match 100.0%; Score 1262; DB 3; Length 245;
Best Local Similarity 100.0%; Pred. No. 5.6e-114;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTYQLQLLFPNLPVTEGICRNRVTNNVNDVTKLVANLPKDYMITLKYPVG 60
Db 1 MKKTQTWLTCTYQLQLLFPNLPVTEGICRNRVTNNVNDVTKLVANLPKDYMITLKYPVG 60

Qy 61 MDVLPFHCWISSEMVVQLSDSLTDLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVCECKENSS 120
Db 61 MDVLPFHCWISSEMVVQLSDSLTDLDDKFSNISSEGLSNYSIIDKLVNIIVDDLVCECKENSS 120

Qy 121 KDLKSKFSKSPRLPFTPEEPRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKGAKNPP 180
Db 121 KDLKSKFSKSPRLPFTPEEPRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKGAKNPP 180

Qy 181 GDSSLHWAAMALPALFSLIIGFAGALYWKRRQPSLTRAVERNIIQINEEDNEISMLOEKER 240
Db 181 GDSSLHWAAMALPALFSLIIGFAGALYWKRRQPSLTRAVERNIIQINEEDNEISMLOEKER 240

Qy 241 EFQEV 245
Db 241 EFQEV 245

RESULT 2
US-09-224-683-63
; Sequence 63, Application US/09224683
; Patent No. US20020031491A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,683
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:

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;
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/175,608
; FILING DATE: 16-Oct-2002
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/635,249
; FILING DATE: 07-AUG-2000
; APPLICATION NUMBER: 09/486,546
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 10-APR-1991
; APPLICATION NUMBER: 09/589,701
; FILING DATE: 10-OCT-1991
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 63:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 245 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 63:
US-10-175-608-63

Query Match 100.0%; Score 1262; DB 4; Length 245;
Best Local Similarity 100.0%; Pred. No. 5.6e-114;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFPNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTIYLQLLFPNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
QY 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIVDDLVCEVKENS 120
DB 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIVDDLVCEVKENS 120
QY 121 KDLKSKFSPRLFTPEEFRIFRSIDAFKDFVVASETSDCVVSSLTSPKKGAKNPP 180
DB 121 KDLKSKFSPRLFTPEEFRIFRSIDAFKDFVVASETSDCVVSSLTSPKKGAKNPP 180
QY 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQKQPSLTRAveniQINEEDNEISMLQEKER 240
DB 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQKQPSLTRAveniQINEEDNEISMLQEKER 240
QY 241 EFQEV 245
DB 241 EFQEV 245

RESULT 4
US-10-688-845-87
; Sequence 87, Application US/1068845
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; Publication No. US20040247578A1
; GENERAL INFORMATION:
; APPLICANT: Lotze, Michael T
; APPLICANT: Tahara, Hideaki
; TITLE OF INVENTION: Methods And Reagents For Inducing Immunity
; FILE REFERENCE: UPT-004
; CURRENT APPLICATION NUMBER: US/10/688,845
; CURRENT FILING DATE: 2003-10-15
; PRIOR APPLICATION NUMBER: 60/418,865
; FILING DATE: 2002-10-15
; NUMBER OF SEQ ID NOS: 87
; SOFTWARE: Patent In version 3.1
; SEQ ID NO 87
; LENGTH: 245
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-688-845-87

Query Match 100.0%; Score 1262; DB 5; Length 245;
Best Local Similarity 100.0%; Pred. No. 5.6e-114;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKTQTWLTCTIYLQLLFPNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTIYLQLLFPNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYPVG 60
QY 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIVDDLVCEVKENS 120
DB 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIVDDLVCEVKENS 120
QY 121 KDLKSKFSPRLFTPEEFRIFRSIDAFKDFVVASETSDCVVSSLTSPKKGAKNPP 180
DB 121 KDLKSKFSPRLFTPEEFRIFRSIDAFKDFVVASETSDCVVSSLTSPKKGAKNPP 180
QY 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQKQPSLTRAveniQINEEDNEISMLQEKER 240
DB 181 GDSSLHWAAMALPALFSLIIGFAGALYWKQKQPSLTRAveniQINEEDNEISMLQEKER 240
QY 241 EFQEV 245
DB 241 EFQEV 245

RESULT 5
US-10-620-642-63
; Sequence 63, Application US/10620642
; Publication No. US20050080250A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESS: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/620,642
; FILING DATE: 16-Jul-2003
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/10/175,608
; FILING DATE: 16-Oct-2002
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APPLICATION NUMBER: 09/635,249
FILING DATE: 07-AUG-2000
APPLICATION NUMBER: 09/486,546
FILING DATE: 24-MAY-1995
APPLICATION NUMBER: 08/172,329
FILING DATE: 21-DEC-1993
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/684,535
FILING DATE: 10-APR-1991
APPLICATION NUMBER: 09/589,701
FILING DATE: 10-OCT-1991
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/35199
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: <unknown>
INFORMATION FOR SEQ ID NO: 63:
SEQUENCE CHARACTERISTICS:
LENGTH: 245 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 63:
US-10-620-642-63

Query Match 100.0%; Score 1262; DB 5; Length 245;
Best Local Similarity 100.0%; Pred. No. 5.6e-114; Mismatches 0; Indels 0; Gaps 0;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60

Qy 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIYDDLVECVKENS 120
Db 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIYDDLVECVKENS 120

Qy 121 KDLKKSFKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKGAKNPP 180
Db 121 KDLKKSFKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKGAKNPP 180

Qy 181 GDSSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOEKER 240
Db 181 GDSSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOEKER 240

Qy 241 EFQEV 245
Db 241 EFQEV 245

RESULT 6

US-09-005-243-49
Sequence 49, Application US/09005243
Patent No. US2002018763A1
GENERAL INFORMATION:
APPLICANT: Zsebo, Kristina M.
APPLICANT: Bosselman, Robert A.
APPLICANT: Suggs, Sidney V.
APPLICANT: Martin, Francis H.
TITLE OF INVENTION: Stem Cell Factor
NUMBER OF SEQUENCES: 104
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun

STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/005,243
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/449,653
FILING DATE: 24-MAY-1995
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/34465
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 49:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-005-243-49

Query Match 97.5%; Score 1231; DB 3; Length 273;
Best Local Similarity 89.4%; Pred. No. 6.7e-111;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

Qy 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60

Qy 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIYDDLVECVKENS 120
Db 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISEGLSNYSIIDKLVNIYDDLVECVKENS 120

Qy 121 KDLKKSFKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKGAKNPP 174
Db 121 KDLKKSFKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180

Qy 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOEKER 212
Db 181 KPFMLPVPVASSLNDSSSNRKNKPNPDGSSLSLHWAAMALPALFSLIIGFAGALYWKRPQSLTRAVENIQINEEDNEISMLOEKER 240

Qy 213 QPSLTRAVENIQINEEDNEISMLOEKER 245
Db 241 QPSLTRAVENIQINEEDNEISMLOEKER 273

RESULT 7
US-09-005-243-61
; Sequence 61, Application US/09005243
; Patent No. US20020018763A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/005,243
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/34465
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-005-243-61

Query Match 97.5%; Score 1231; DB 3; Length 273;
Best Local Similarity 89.4%; Pred. No. 6.7e-111;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;
QY 1 MKKTOTWLTCTYLLQLLFNPLVKTGECRNRTVNNVNDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTOTWLTCTYLLQLLFNPLVKTGECRNRTVNNVNDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIVDDLVCEVKENSS 120

Db 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISSEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
QY 121 KDLKSKFSKPEPRLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKG----- 174
Db 121 KDLKSKFSKPEPRLFTPEFFRIFNRSIDAFKDFVVASETSDCVVSSSTLSPEKDSRVSVT 180
QY 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 212
Db 181 KPFMLPPVAASSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
QY 213 QPSLTRAVENTIQINEEDNEISMLQEKREPOEV 245
Db 241 QPSLTRAVENTIQINEEDNEISMLQEKREPOEV 273
RESULT 8
US-09-224-683-49
; Sequence 49, Application US/09224683
; Patent No. US20020031491A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/224,683
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/005,893
; FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35136
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448

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; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
;   LENGTH: 273 amino acids
;   TYPE: amino acid
;   STRANDEDNESS: single
;   TOPOLOGY: linear
;   MOLECULE TYPE: protein
US-09-224-683-49

Query Match          97.5%; Score 1231; DB 3; Length 273;
Best Local Similarity 89.4%; Pred. No. 6.7e-111;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

Qy 1 MKKTQTWILTCIYLQLLFNPLVTEGICRRNRVNNVNDVTKLVANLPKDYMITLKYPVG 60
Db 1 MKKTQTWILTCIYLQLLFNPLVTEGICRRNRVNNVNDVTKLVANLPKDYMITLKYPVG 60

Qy 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISGLSNYSIIDKLVNIIVDDLVKVCNENSS 120
Db 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISGLSNYSIIDKLVNIIVDDLVKVCNENSS 120

Qy 121 KDLKSPKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKG----- 174
Db 121 KDLKSPKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180

Qy 175 -----KAKNPGDSSLHWAAMALPALFSLIIGFAGALYWKRR 212
Db 181 KPFMLPPVAASSLRNDSRSSNRKAKNPPGDSLHWAAMALPALFSLIIGFAGALYWKRR 240

Qy 213 QPSLTRAVENTIINEEDNEISMLOEKEREFOEV 245
Db 241 QPSLTRAVENTIINEEDNEISMLOEKEREFOEV 273

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RESULT 9

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US-09-224-683-61
; Sequence 61, Application US/09224683
; Patent No. US20020031491A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; CORRESPONDENCE ADDRESS:
;   NUMBER OF SEQUENCES: 104
; ADDRESS: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
;   APPLICATION NUMBER: US/09/224,683
;   FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: 09/005,893
;   FILING DATE: 12-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: 08/449,653
;   FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: 07/982,255
;   FILING DATE: 25-NOV-1992

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; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: 07/589,701
;   FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: 07/573,616
;   FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: 07/537,198
;   FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: 07/422,383
;   FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
;   NAME: Clough, David W.
;   REGISTRATION NUMBER: 36,107
;   REFERENCE/DOCKET NUMBER: 01017/35136
; TELECOMMUNICATION INFORMATION:
;   TELEPHONE: 312/474-6300
;   TELEFAX: 312/474-0448
;   TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
;   LENGTH: 273 amino acids
;   TYPE: amino acid
;   TOPOLOGY: linear
;   MOLECULE TYPE: protein
US-09-224-683-61

Query Match          97.5%; Score 1231; DB 3; Length 273;
Best Local Similarity 89.4%; Pred. No. 6.7e-111;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

Qy 1 MKKTQTWILTCIYLQLLFNPLVTEGICRRNRVNNVNDVTKLVANLPKDYMITLKYPVG 60
Db 1 MKKTQTWILTCIYLQLLFNPLVTEGICRRNRVNNVNDVTKLVANLPKDYMITLKYPVG 60

Qy 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISGLSNYSIIDKLVNIIVDDLVKVCNENSS 120
Db 61 MDVLPSCWISSEMVVQLSDSLTDLDDKFSNISGLSNYSIIDKLVNIIVDDLVKVCNENSS 120

Qy 121 KDLKSPKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKG----- 174
Db 121 KDLKSPKSPRLFTPEEFRIFNRSIDAFKDFVASETSDCVVSSSTLSPEKDSRVSVT 180

Qy 175 -----KAKNPGDSSLHWAAMALPALFSLIIGFAGALYWKRR 212
Db 181 KPFMLPPVAASSLRNDSRSSNRKAKNPPGDSLHWAAMALPALFSLIIGFAGALYWKRR 240

Qy 213 QPSLTRAVENTIINEEDNEISMLOEKEREFOEV 245
Db 241 QPSLTRAVENTIINEEDNEISMLOEKEREFOEV 273

RESULT 10
US-10-175-608-49
; Sequence 49, Application US/10175608
; Publication No. US20040181044A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESS: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk

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; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/175,608
; FILING DATE: 16-Oct-2002
; CLASSIFICATION: <Unknown>
;
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/635,249
; FILING DATE: 07-AUG-2000
; APPLICATION NUMBER: 09/486,546
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 10-APR-1991
; APPLICATION NUMBER: 09/589,701
; FILING DATE: 10-OCT-1991
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
;
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
;
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
;
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 49:
US-10-175-608-49

Query Match          97.5%; Score 1231; DB 4; Length 273;
Best Local Similarity 89.4%; Pred. No. 6.7e-111;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

QY 1 MKKTQTWLTCTIYQLQLLFPNPLVKTEGICRRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTIYQLQLLFPNPLVKTEGICRRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
QY 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISIDKLVNIYVDDLVECVKENS 120
DB 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISIDKLVNIYVDDLVECVKENS 120
QY 121 KDLKSKSPKSPRLPTPEFFRIFNRSIDAFKDFVVASETSCVSVSTLSPKSG----- 174
DB 121 KDLKSKSPKSPRLPTPEFFRIFNRSIDAFKDFVVASETSCVSVSTLSPKSGRSVST 180
QY 175 -----KAKNPQDSSLHWAAMALPALFSLIIGFAPGALYWKCR 212
DB 181 KPPMLPPVAASSLRNDSNNRKAKNPPQDSSLHWAAMALPALFSLIIGFAPGALYWKCR 240
QY 213 QPSLTRAVENTIQNEEDNEISMLOKEREFOEV 245
DB 241 QPSLTRAVENTIQNEEDNEISMLOKEREFOEV 273

RESULT 11
US-10-175-608-61
; Sequence 61, Application US/10175608
; Publication No. US200401810441
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;
; GENERAL INFORMATION:
; APPLICANT: Zsebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESS: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
;
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/175,608
; FILING DATE: 16-Oct-2002
; CLASSIFICATION: <Unknown>
;
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/635,249
; FILING DATE: 07-AUG-2000
; APPLICATION NUMBER: 09/486,546
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 10-APR-1991
; APPLICATION NUMBER: 09/589,701
; FILING DATE: 10-OCT-1991
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
;
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
;
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 61:
US-10-175-608-61

Query Match          97.5%; Score 1231; DB 4; Length 273;
Best Local Similarity 89.4%; Pred. No. 6.7e-111;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

QY 1 MKKTQTWLTCTIYQLQLLFPNPLVKTEGICRRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTIYQLQLLFPNPLVKTEGICRRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
QY 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISIDKLVNIYVDDLVECVKENS 120
DB 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISIDKLVNIYVDDLVECVKENS 120
QY 121 KDLKSKSPKSPRLPTPEFFRIFNRSIDAFKDFVVASETSCVSVSTLSPKSG----- 174
DB 121 KDLKSKSPKSPRLPTPEFFRIFNRSIDAFKDFVVASETSCVSVSTLSPKSG----- 174
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Db 121 KDLKSKFKSPRLFTPEEPFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVSVT 180
Qy 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 212
Db 181 KPFMLPPVVAASLRNDSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240
Qy 213 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 245
Db 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273

RESULT 12

US-10-620-642-49
; Sequence 49, Application US/10620642
; Publication No. US20050080250A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/620,642
; FILING DATE: 16-Jul-2003
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/10/175,608
; FILING DATE: 16-Oct-2002
; APPLICATION NUMBER: 09/635,249
; FILING DATE: 07-AUG-2000
; APPLICATION NUMBER: 09/486,546
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 10-APR-1991
; APPLICATION NUMBER: 09/589,701
; FILING DATE: 10-OCT-1991
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/35199
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear

; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 49:
US-10-620-642-49
Query Match 97.5%; Score 1231; DB 5; Length 273;
Best Local Similarity 89.4%; Pred. No. 6.7e-111;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;
Qy 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
Db 1 MKKTQTWILTCIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYVPG 60
Qy 61 MDVLPSCWISSEMVVQLSDSLTDLKFSNISSEGLSNYSIIDKLVINIVDDLVECKENSS 120
Db 61 MDVLPSCWISSEMVVQLSDSLTDLKFSNISSEGLSNYSIIDKLVINIVDDLVECKENSS 120
Qy 121 KDLKSKFKSPRLFTPEEPFRIFNRSIDAFKDFVASETSDCVVSTLSPEKGSPEK 174
Db 121 KDLKSKFKSPRLFTPEEPFRIFNRSIDAFKDFVASETSDCVVSTLSPEKDSRVSVT 180
Qy 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 212
Db 181 KPFMLPPVVAASLRNDSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAGALYWKCR 240
Qy 213 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 245
Db 241 QPSLTRAVENTIQINEEDNEISMLOEKEREFOEV 273
RESULT 13
US-10-620-642-61
; Sequence 61, Application US/10620642
; Publication No. US20050080250A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; Bosselman, Robert A.
; Suggs, Sidney V.
; Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/620,642
; FILING DATE: 16-Jul-2003
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/10/175,608
; FILING DATE: 16-Oct-2002
; APPLICATION NUMBER: 09/635,249
; FILING DATE: 07-AUG-2000
; APPLICATION NUMBER: 09/486,546
; FILING DATE: 24-MAY-1995
; APPLICATION NUMBER: 08/172,329
; FILING DATE: 21-DEC-1993
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; APPLICATION NUMBER: 07/684,535
; FILING DATE: 10-APR-1991
; APPLICATION NUMBER: 09/589,701
; FILING DATE: 10-OCT-1991
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990

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; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: <unknown>
; INFORMATION FOR SEQ ID NO: 61:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 61:
US-10-620-642-61

Query Match          97.5%; Score 1231; DB 5; Length 273;
Best Local Similarity 89.4%; Pred. No. 6.7e-111;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;

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DB 1 MKKTQTWLTCTIYLQLLFPNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
QY 61 MDVLPSCWISWVQVSDSLTDLKFSNISGLSNYSIIDKLVNIVDDLVCEVKENS 120
DB 61 MDVLPSCWISWVQVSDSLTDLKFSNISGLSNYSIIDKLVNIVDDLVCEVKENS 120
QY 121 KDLKSKSPKSPRLTPEEPRIFNRSIDAFKDFVVASSETSCVVSSTLSPEKGV 174
DB 121 KDLKSKSPKSPRLTPEEPRIFNRSIDAFKDFVVASSETSCVVSSTLSPEKGV 180
QY 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWK 212
DB 181 KPFMLPPVAASLRNDSNRRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWK 240
QY 213 QPSLTRAVENTIINEEDNEISMLOKEREFOEV 245
DB 241 QPSLTRAVENTIINEEDNEISMLOKEREFOEV 273

RESULT 14
US-09-005-243-48
; Sequence 48, Application US/09005243
; Patent No. US20020018763A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESSES:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/005,243
; FILING DATE:
; CLASSIFICATION:
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; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/449,653
; FILING DATE: 24-MAY-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/982,255
; FILING DATE: 25-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/589,701
; FILING DATE: 01-OCT-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/573,616
; FILING DATE: 24-AUG-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/537,198
; FILING DATE: 11-JUN-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/422,383
; FILING DATE: 16-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: Clough, David W.
; REGISTRATION NUMBER: 36,107
; REFERENCE/DOCKET NUMBER: 01017/34465
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 273 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-005-243-48

Query Match          97.1%; Score 1226; DB 3; Length 273;
Best Local Similarity 89.0%; Pred. No. 2e-110;
Matches 243; Conservative 0; Mismatches 2; Indels 28; Gaps 1;

QY 1 MKKTQTWLTCTIYLQLLFPNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
DB 1 MKKTQTWLTCTIYLQLLFPNPLVKTGICRNRVTNNVDVTKLVANLPKDYMITLKYPVG 60
QY 61 MDVLPSCWISWVQVSDSLTDLKFSNISGLSNYSIIDKLVNIVDDLVCEVKENS 120
DB 61 MDVLPSCWISWVQVSDSLTDLKFSNISGLSNYSIIDKLVNIVDDLVCEVKENS 120
QY 121 KDLKSKSPKSPRLTPEEPRIFNRSIDAFKDFVVASSETSCVVSSTLSPEKGV 174
DB 121 KDLKSKSPKSPRLTPEEPRIFNRSIDAFKDFVVASSETSCVVSSTLSPEKGV 180
QY 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWK 212
DB 181 KPFMLPPVAASLRNDSNRRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWK 240
QY 213 QPSLTRAVENTIINEEDNEISMLOKEREFOEV 245
DB 241 QPSLTRAVENTIINEEDNEISMLOKEREFOEV 273

RESULT 15
US-09-224-683-48
; Sequence 48, Application US/09224683
; Patent No. US20020031491A1
; GENERAL INFORMATION:
; APPLICANT: Zeebo, Kristina M.
; APPLICANT: Bosselman, Robert A.
; APPLICANT: Suggs, Sidney V.
; APPLICANT: Martin, Francis H.
; TITLE OF INVENTION: Stem Cell Factor: Composition Claims
; NUMBER OF SEQUENCES: 104
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
```

STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/224,683
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/35136
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 48:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-224-683-48

Query Match 97.1%; Score 1226; DB 3; Length 273;
Best Local Similarity 89.0%; Pred No. 2e-110;
Matches 243; Conservative 0; Mismatches 2; Indels 28; Gaps 1;

QY 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYYPG 60
DB 1 MKKTQTWLTCTIYLQLLFNPLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLKYYPG 60

QY 61 MDVLP SHCWI SEMV VQLSDSLTDL D KFSNITSEGLSNYSIIDKL VNI VDDLVECVKENS 120
DB 61 MDVLP SHCWI SEMV VQLSDSLTDL D KFSNITSEGLSNYSIIDKL VNI VDDLVECVKENS 120

QY 121 KDLKSFKSPRLFTPEFFRIENRSIDAPKDFVVASSETDCVVSSTLSPEKG----- 174
DB 121 KDLKSFKSPRLFTPEFFRIENRSIDAPKDFVVASSETDCVVSSTLSPEKDSRVST 180

QY 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIIGFAFGALYWK 212
DB 181 KPFLMPVPAASSLRNDSSSSNRKAKNPPGDSLSLHWPAMALPALFSLIIIGFAFGALYWK 240

QY 213 QPSLTRA VNIQINEEDNEISMLQEKREFOEV 245
DB 241 QPSLTRA VNIQINEEDNEISMLQEKREFOEV 273

Search completed: February 22, 2006, 18:26:56
Job time : 98.865 secs

GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: February 22, 2006, 18:22:17 ; Search time 9.44904 Seconds
(without alignments)
386.005 Million cell updates/sec

Title: US-10-620-642-63

Perfect score: 1262

Sequence: 1 MKKQTWLTCTIYLQLLFN.....NEEDNEISMLOKREPOEV 245

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 117670 seqs, 14887254 residues

Total number of hits satisfying chosen parameters: 117670

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA_New:*

- 1: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep.*
- 2: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep.*
- 3: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep.*
- 4: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep.*
- 5: /cgn2_6/ptodata/2/pubpaa/US05_NEW_PUB.pep.*
- 6: /cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep.*
- 7: /cgn2_6/ptodata/2/pubpaa/US11_NEW_PUB.pep.*
- 8: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1262	100.0	245	US-10-353-783-63	Sequence 63, Appl
2	1231	97.5	273	US-10-353-783-49	Sequence 49, Appl
3	1231	97.5	273	US-10-353-783-61	Sequence 61, Appl
4	1226	97.1	273	US-10-353-783-48	Sequence 48, Appl
5	1215	96.3	273	US-10-353-783-50	Sequence 50, Appl
6	1099	87.1	248	US-10-519-390-24	Sequence 24, Appl
7	1099	87.1	248	US-11-176-830-206	Sequence 206, Appl
8	1097	86.9	248	US-11-176-830-520	Sequence 520, Appl
9	1097	86.9	248	US-11-176-830-537	Sequence 537, Appl
10	1096	86.8	248	US-11-176-830-519	Sequence 519, Appl
11	1096	86.8	248	US-11-176-830-529	Sequence 529, Appl
12	1096	86.8	248	US-11-176-830-536	Sequence 536, Appl
13	1096	86.8	248	US-11-176-830-538	Sequence 538, Appl
14	1095	86.8	248	US-11-176-830-499	Sequence 499, Appl
15	1095	86.8	248	US-11-176-830-500	Sequence 500, Appl
16	1095	86.8	248	US-11-176-830-501	Sequence 501, Appl
17	1095	86.8	248	US-11-176-830-513	Sequence 513, Appl
18	1095	86.8	248	US-11-176-830-517	Sequence 517, Appl
19	1095	86.8	248	US-11-176-830-521	Sequence 521, Appl
20	1095	86.8	248	US-11-176-830-523	Sequence 523, Appl
21	1095	86.8	248	US-11-176-830-527	Sequence 527, Appl
22	1095	86.8	248	US-11-176-830-535	Sequence 535, Appl
23	1094	86.7	248	US-11-176-830-502	Sequence 502, Appl
24	1094	86.7	248	US-11-176-830-506	Sequence 506, Appl
25	1094	86.7	248	US-11-176-830-508	Sequence 508, Appl

ALIGNMENTS

RESULT 1

US-10-353-783-63

; Sequence 63, Application US/10353783

; Publication No. US20050261175A1

; GENERAL INFORMATION:

; APPLICANT: Zeebo, Kristina M.

; Bosseiman, Robert A.

; Suggs, Sidney V.

; Martin, Francis H.

; TITLE OF INVENTION: Stem Cell Factor

; NUMBER OF SEQUENCES: 104

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun

; STREET: 6300 Sears Tower, 233 South Wacker Drive

; CITY: Chicago

; STATE: Illinois

; COUNTRY: United States of America

; ZIP: 60606-6402

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/10/353,783

; FILING DATE: 28-Jan-2003

; CLASSIFICATION: <Unknown>

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 08/448,729

; FILING DATE: 24-MAY-1995

; APPLICATION NUMBER: 08/172,329

; FILING DATE: 21-DEC-1993

; APPLICATION NUMBER: 07/982,255

; FILING DATE: 25-NOV-1992

; APPLICATION NUMBER: 07/684,535

; FILING DATE: 10-APR-1991

; APPLICATION NUMBER: 07/589,701

; FILING DATE: 01-OCT-1990

; APPLICATION NUMBER: 07/573,616

; FILING DATE: 24-AUG-1990

; APPLICATION NUMBER: 07/537,198

; FILING DATE: 11-JUN-1990

; APPLICATION NUMBER: 07/422,383

; FILING DATE: 16-OCT-1989

; ATTORNEY/AGENT INFORMATION:

; NAME: Clough, David W.

; REGISTRATION NUMBER: 36,107

; REFERENCE/DOCKET NUMBER: 01017/32958A

Sequence 510, App
Sequence 512, App
Sequence 514, App
Sequence 518, App
Sequence 522, App
Sequence 524, App
Sequence 528, App
Sequence 530, App
Sequence 531, App
Sequence 534, App
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Sequence 540, App
Sequence 542, App
Sequence 505, App
Sequence 507, App
Sequence 509, App
Sequence 511, App
Sequence 515, App
Sequence 525, App
Sequence 541, App

OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/353,783
FILING DATE: 28-Jan-2003
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/448,729
FILING DATE: 24-MAY-1995
APPLICATION NUMBER: 08/172,329
FILING DATE: 21-DEC-1993
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/684,535
FILING DATE: 10-APR-1991
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/32958A
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 61:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 61:
US-10-353-783-61

Query Match 97.5%; Score 1231; DB 6; Length 273;
Best Local Similarity 89.4%; Pred. No. 1.3e-105;
Matches 244; Conservative 0; Mismatches 1; Indels 28; Gaps 1;
QY 1 MKKTWTILTCYLLQLLFPNPLVKTEGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTWTILTCYLLQLLFPNPLVKTEGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
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DB 121 KDLKSPKSPERLFTPEEPFRINRSIDAFKDFVVASSETSCVVSSTLSPKDSRVSVT 180
QY 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 212
DB 181 KPFMLPPVAASLSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240
QY 213 QPSLTRAVENTIQINEDNEISMQLQKEREFOV 245
DB 241 QPSLTRAVENTIQINEDNEISMQLQKEREFOV 273

RESULT 4

US-10-353-783-48
Sequence 48, Application US/10353783
Publication No. US20050261175A1
GENERAL INFORMATION:
APPLICANT: Zsebo, Krisztina M.
Bosselman, Robert A.
Suggs, Sidney V.

Martin, Francis H.
TITLE OF INVENTION: Stem Cell Factor
NUMBER OF SEQUENCES: 104
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/353,783
FILING DATE: 28-Jan-2003
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/448,729
FILING DATE: 24-MAY-1995
APPLICATION NUMBER: 08/172,329
FILING DATE: 21-DEC-1993
APPLICATION NUMBER: 07/982,255
FILING DATE: 25-NOV-1992
APPLICATION NUMBER: 07/684,535
FILING DATE: 10-APR-1991
APPLICATION NUMBER: 07/589,701
FILING DATE: 01-OCT-1990
APPLICATION NUMBER: 07/573,616
FILING DATE: 24-AUG-1990
APPLICATION NUMBER: 07/537,198
FILING DATE: 11-JUN-1990
APPLICATION NUMBER: 07/422,383
FILING DATE: 16-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 01017/32958A
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 48:
SEQUENCE CHARACTERISTICS:
LENGTH: 273 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 48:
US-10-353-783-48
Query Match 97.1%; Score 1226; DB 6; Length 273;
Best Local Similarity 89.0%; Pred. No. 3.8e-105;
Matches 243; Conservative 0; Mismatches 2; Indels 28; Gaps 1;
QY 1 MKKTWTILTCYLLQLLFPNPLVKTEGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
DB 1 MKKTWTILTCYLLQLLFPNPLVKTEGICRNRTNNVNDVTKLVANLPKDYMITLKYVPG 60
QY 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
DB 61 MDVLPSCWISWMVQVLSLTDLLDKFSNISEGLSNYSIIDKLVNIVDDLVCEVKENSS 120
QY 121 KDLKSPKSPERLFTPEEPFRINRSIDAFKDFVVASSETSCVVSSTLSPKDSRVSVT 174
DB 121 KDLKSPKSPERLFTPEEPFRINRSIDAFKDFVVASSETSCVVSSTLSPKDSRVSVT 180
QY 175 -----KAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 212
DB 181 KPFMLPPVAASLSLRNDSSSNRKAKNPPGDSLSLHWAAMALPALFSLIIGFAFGALYWKCR 240


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; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 520
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-520

Query Match      86.9%; Score 1097; DB 7; Length 248;
Best Local Similarity 87.9%; Pred. No. 2.2e-93;
Matches 218; Conservative 1; Mismatches 1; Indels 28; Gaps 1

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Db 1 EGICRNRVTNNVKDVTKLVANLPKDYMITLTKYVPGMDVLP SHCWISEMVVQLSDSLTDLL 60

Qy 86 DKFSNISEGLSNYSIIIDKLVNI VDDLVECVKENS SKDKKFKSPKPEPLRFTPEEPFRIFN 145
Db 61 DKFSNISEGLSNYSIIIDKLVNI VDDLVECVKENS SKDKKFKSPKPEPLRFTPEEPFRIFN 120

Qy 146 RSIDAPKDFVVASETSDCVSSSTLSPEKG-----KAK 177
Db 121 RSIDAPKDFVVASETSDCVSSSTLSPEKDSRVSTVKPFMLPPVAASLRNDSSSSNNRAK 180

Qy 178 NPPGDDSLHWAAMALPALFSIIIGAFGALYKKRKQPSLTRAVENTIQINBEEDNEISMLOE 237
Db 181 NPPGDDSLHWAAMALPALFSIIIGAFGALYKKRKQPSLTRAVENTIQINBEEDNEISMLOE 240

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Cy	238	KEREFQEV	245	
Db	241	KEREFQEV	248	

RESULT 9
 US-11-176-830-537
 ; Sequence 537, Application US/11176830
 ; Publication No. US20060020116A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Gantier, Rene
 ; APPLICANT: Guyon, Thierry
 ; APPLICANT: Drittanti, Lila
 ; APPLICANT: Vega, Manuel
 ; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, B
 ; FILE REFERENCE: 17109-012002 (922B)
 ; CURRENT APPLICATION NUMBER: US/11/176,830
 ; CURRENT FILING DATE: 2005-07-06
 ; PRIOR APPLICATION NUMBER: 10/658,834
 ; PRIOR FILING DATE: 2003-09-08
 ; PRIOR APPLICATION NUMBER: 60/457,135
 ; PRIOR FILING DATE: 2003-03-21

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; PRIOR FINDING DATA: 2002-03-03
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: Fast-SEQ for Windows Version 4.0
; SEQ ID NO 537
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-537

Query Match      86.9%; Score 1097; DB 7; Length 248;
Best Local Similarity 87.9%; Pred. No. 2.2e-93;
Matches 218; Conservative 1; Mismatches 1; Indels 28; Gaps 1

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Qy      86  DKFNSISIEGLSNYSIIDKLNVIVDVLVECKENSKDKLKSKGPEPRLFTPEEPFRIFN 145

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Db 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNRKAK 180
QY 178 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKQKQPSITRAVENIQINEEDNEISMLQE 237
Db 181 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKQKQPSITRAVENIQINEEDNEISMLQE 240
QY 238 KEREFQEV 245
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RESULT 10

US-11-176-830-519
; Sequence 519, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding Nu
; TITLE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: 2005-07-06
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,834
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 519
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-519

Query Match 86.8%; Score 1096; DB 7; Length 248;
Best Local Similarity 87.9%; Pred. No. 2.7e-93;
Matches 218; Conservative 1; Mismatches 1; Indels 28; Gaps 1;

QY 26 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISWMVQLSDSLTDLL 85
Db 1 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISWMVQLSDSLTDLL 60
QY 86 DKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS SKDKKSPKSPERLFTPEEFRIFN 145
Db 61 DKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS SKDKKSPKSPERLFTPEEFRIFN 120
QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKGV-----KAK 177
Db 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNRKAK 180
QY 178 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKQKQPSITRAVENIQINEEDNEISMLQE 237
Db 181 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKQKQPSITRAVENIQINEEDNEISMLQE 240
QY 238 KEREFQEV 245
Db 241 KEREFQEV 248

RESULT 11

US-11-176-830-529
; Sequence 529, Application US/11176830
; Publication No. US20060020116A1

; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding Nu
; TITLE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 529
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-529

Query Match 86.8%; Score 1096; DB 7; Length 248;
Best Local Similarity 87.9%; Pred. No. 2.7e-93;
Matches 218; Conservative 1; Mismatches 1; Indels 28; Gaps 1;
QY 26 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISWMVQLSDSLTDLL 85
Db 1 EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLPSCWISWMVQLSDSLTDLL 60
QY 86 DKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS SKDKKSPKSPERLFTPEEFRIFN 145
Db 61 DKFSNISEGLSNYSIIDKLVNIVDDLVECVKENS SKDKKSPKSPERLFTPEEFRIFN 120
QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKGV-----KAK 177
Db 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSSNRKAK 180
QY 178 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKQKQPSITRAVENIQINEEDNEISMLQE 237
Db 181 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKQKQPSITRAVENIQINEEDNEISMLQE 240
QY 238 KEREFQEV 245
Db 241 KEREFQEV 248

RESULT 12

US-11-176-830-536
; Sequence 536, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding Nu
; TITLE OF INVENTION: Acid Molecules and Related Applications
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 536
; LENGTH: 248

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; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-536

Query Match      86.8%; Score 1096; DB 7; Length 248;
Best Local Similarity 87.9%; Pred. No. 2.7e-93;
Matches 218; Conservative 1; Mismatches 1; Indels 28; Gaps 1;

QY 26 EGCNRRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWCISEMNVQLSDSLTDL 85
DB 1 EGCNRRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWCISEMNVQLSDSLTDL 60

QY 86 DKFSNISEGLSNYSIIDKLVNIDVLCVCNENSSKDLKSKSPKSPPEPRLFTPEEPFRIFN 145
DB 61 DKFSNISEGLSNYSIIDKLVNIDVLCVCNENSSKDLKSKSPKSPPEPRLFTPEEPFRIFN 120

QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKG-----KAK 177
DB 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKAK 180

QY 178 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIENEEDNEISMLOE 237
DB 181 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIENEEDNEISMLOE 240

QY 238 KEREFQEV 245
DB 241 KEREFQEV 248

RESULT 13
US-11-176-830-538
; Sequence 538, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 538
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-538

Query Match      86.8%; Score 1096; DB 7; Length 248;
Best Local Similarity 87.9%; Pred. No. 2.7e-93;
Matches 218; Conservative 1; Mismatches 1; Indels 28; Gaps 1;

QY 26 EGCNRRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWCISEMNVQLSDSLTDL 85
DB 1 EGCNRRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWCISEMNVQLSDSLTDL 60

QY 86 DKFSNISEGLSNYSIIDKLVNIDVLCVCNENSSKDLKSKSPKSPPEPRLFTPEEPFRIFN 145
DB 61 DKFSNISEGLSNYSIIDKLVNIDVLCVCNENSSKDLKSKSPKSPPEPRLFTPEEPFRIFN 120

QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKG-----KAK 177
DB 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKAK 180

QY 178 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIENEEDNEISMLOE 237
DB 181 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIENEEDNEISMLOE 240

QY 238 KEREFQEV 245
DB 241 KEREFQEV 248

RESULT 14
US-11-176-830-499
; Sequence 499, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 499
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-499

Query Match      86.8%; Score 1095; DB 7; Length 248;
Best Local Similarity 87.9%; Pred. No. 3.4e-93;
Matches 218; Conservative 1; Mismatches 1; Indels 28; Gaps 1;

QY 26 EGCNRRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWCISEMNVQLSDSLTDL 85
DB 1 EGCNRRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWCISEMNVQLSDSLTDL 60

QY 86 DKFSNISEGLSNYSIIDKLVNIDVLCVCNENSSKDLKSKSPKSPPEPRLFTPEEPFRIFN 145
DB 61 DKFSNISEGLSNYSIIDKLVNIDVLCVCNENSSKDLKSKSPKSPPEPRLFTPEEPFRIFN 120

QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKG-----KAK 177
DB 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKAK 180

QY 178 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIENEEDNEISMLOE 237
DB 181 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIENEEDNEISMLOE 240

QY 238 KEREFQEV 245
DB 241 KEREFQEV 248

RESULT 15
US-11-176-830-500
; Sequence 500, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
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QY 178 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIENEEDNEISMLOE 237
DB 181 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIENEEDNEISMLOE 240

QY 238 KEREFQEV 245
DB 241 KEREFQEV 248

RESULT 14
US-11-176-830-499
; Sequence 499, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 499
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-499

Query Match      86.8%; Score 1095; DB 7; Length 248;
Best Local Similarity 87.9%; Pred. No. 3.4e-93;
Matches 218; Conservative 1; Mismatches 1; Indels 28; Gaps 1;

QY 26 EGCNRRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWCISEMNVQLSDSLTDL 85
DB 1 EGCNRRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWCISEMNVQLSDSLTDL 60

QY 86 DKFSNISEGLSNYSIIDKLVNIDVLCVCNENSSKDLKSKSPKSPPEPRLFTPEEPFRIFN 145
DB 61 DKFSNISEGLSNYSIIDKLVNIDVLCVCNENSSKDLKSKSPKSPPEPRLFTPEEPFRIFN 120

QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKG-----KAK 177
DB 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAASSLRNDSSSNRKAK 180

QY 178 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIENEEDNEISMLOE 237
DB 181 NPPGSSSLHWAAMALPALFSLIIGFAGALYWKKGQPSLTRAVENTIENEEDNEISMLOE 240

QY 238 KEREFQEV 245
DB 241 KEREFQEV 248

RESULT 15
US-11-176-830-500
; Sequence 500, Application US/11176830
; Publication No. US20060020116A1
; GENERAL INFORMATION:
; APPLICANT: Gantier, Rene
; APPLICANT: Guyon, Thierry
; APPLICANT: Drittanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding N
```

;
; FILE REFERENCE: 17109-012002 (922B)
; CURRENT APPLICATION NUMBER: US/11/176,830
; CURRENT FILING DATE: 2005-07-06
; PRIOR APPLICATION NUMBER: 10/658,834
; PRIOR FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: 60/457,135
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: 60/409,898
; PRIOR FILING DATE: 2002-09-09
; NUMBER OF SEQ ID NOS: 1306
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 500
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-830-500

Query Match 86.8%; Score 1095; DB 7; Length 248;
Best Local Similarity 87.9%; Pred. No. 3.4e-93;
Matches 218; Conservative 1; Mismatches 1; Indels 28; Gaps 1;
QY 26 EGICRNRVTNNKDVTKLVANLPKDYMITLKYPGMDVLPSCWISEMVVQLSDSLTDLL 85
Db 1 EGICRNRVTNNKDVTKLVANLPKDYIITLKYPGMDVLPSCWISEMVVQLSDSLTDLL 60
QY 86 DKFSNISEGLSNYSIIDKLVNIVDDLVKVCVKNSSKDKKSKSPKPELFTPEREERIFN 145
Db 61 DKFSNISEGLSNYSIIDKLVNIVDDLVKVCVKNSSKDKKSKSPKPELFTPEREERIFN 120
QY 146 RSIDAFKDFVVASETSDCVSSTLSPEKG-----KAK 177
Db 121 RSIDAFKDFVVASETSDCVSSTLSPEKDSRVSTKPFMLPPVAASSLRNDSSSNRKAK 180
QY 178 NPPGDSLSLHWAAMALPALFSLIIGFAGCALYWKKRQPSLTRAIVENIQINEEDNEISMLOE 237
Db 181 NPPGDSLSLHWAAMALPALFSLIIGFAGCALYWKKRQPSLTRAIVENIQINEEDNEISMLOE 240
QY 238 KEREFOEV 245
Db 241 KEREFOEV 248

Search completed: February 22, 2006, 18:27:29
Job time : 10.449 secs